The Scottish Improvement Journey

The Scottish Improvement Journey:

A Nationwide Approach to Improvement

Compiled 2016/17

Institute *for* Healthcare Improvement

Scottish Government
Riaghaltas na h-Alba
gov.scot

The Scottish Improvement Journey:
A Nationwide Approach to Improvement

Contents

1. Introduction

Public services face many challenges ranging from increasing demands for services and funding cuts, to inefficient or at times even ineffective processes. Quality improvement can be considered as part of a solution to such challenges, as the approach focuses on doing things better at the system level rather than just having people working more or working even harder. Building on a long history of quality services, driven by staff and professional bodies, Scotland's present ambition is to make the country the best place to live in. To achieve this goal, the Scottish Government recognises the need for quality improvement in public services and is, therefore, putting great effort into building an integrated landscape of quality improvement in public services.

This paper shares the story of the Scottish Improvement Journey, starting with its innovative beginnings, encompassing 50 years of clinical audit and various improvement programmes, then focusing on the introduction of the world's first national patient safety programme, and exploring the spread of quality improvement into new social policy areas such as children's services, education, and justice. Based on experiences of improvement experts, senior leaders and various stakeholders in Scotland together with those involved in improvement works, we demonstrate how a systematic application of a quality improvement methodology can lead to dramatic changes and significant improvement within public services on a national scale. This paper aims to provide an understanding of improvement efforts in Scotland over this period, and share the key factors that led them to success as well as challenges faced along the way.

While improvement has many definitions with little agreement found in the literature (Rowe and Chapman, 2015), the NHS Scotland QI Hub defines quality improvement as the 'application of a systematic approach that uses specific techniques to improve quality. Though there is a range of different approaches that fit under this umbrella they all have the following in common:

• The concept of a cycle of improvement which involves data collection, problem definition and diagnosis, generation, testing, measurement iteration and selection of potential changes and the implementation and evaluation of those changes.
• A set of tools and techniques that support individuals to implement the cycle of improvement.
• A recognition of the central importance of engaging those who receive and deliver a service in the improvement of that service.
• A recognition of the importance of organisational context and the need for senior clinical and management leadership.' (Scottish Government, 2016)

.Our understanding and use of the term 'improvement' throughout this paper, and particularly when discussing early improvement efforts in Scotland, takes on this broad definition encompassing innovation, creativity, design, implementation, or system change, all while focusing on measurement and using whichever improvement methodology or tool that is the most appropriate for the context. This paper focuses on large scale change, particularly the Breakthrough Series Collaborative method developed by the Institute for Healthcare Improvement (IHI, 2003) and thereafter used within many of the programmes discussed. Recognising there is no such thing as recipe book improvement, our goal is to learn from successful improvement works in one context and transfer the knowledge gained into other contexts.

2. The Scottish context

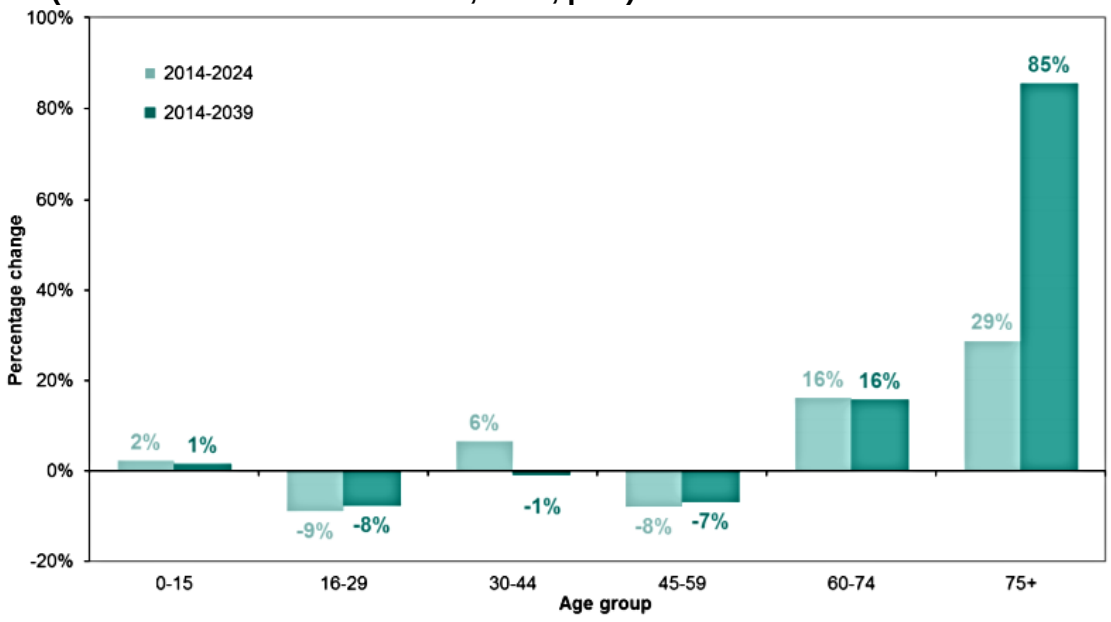
Scotland is a small country of approximately 5.4 million people spread across diverse areas from the urban cities of Glasgow and Edinburgh to extremely rural regions and islands (Table 1).

Table 1: Characteristics of Scotland (National Records of Scotland, 2017)

Population	**5.37 million (2015)**
Capital	Edinburgh
Largest city	Glasgow
Location	Northern 1/3 of the island of Great Britain as well as 790 surrounding islands
Government	Devolved parliamentary legislature within the UK constitutional monarchy

The population of Scotland is projected to increase by 7% to 5.7 million by 2039 (National Records of Scotland, 2015) with a strong upward trend in ageing population being observed (Figure 1). A 28% increase in the number of people of pensionable age or over and an 85% increase in those 75+ are projected by 2039. Meanwhile the working age population is set to increase by only 1% (National Records of Scotland, 2015). This trend will significantly impact public services through the demand for health and social care services, particularly given the expected rise in long-term health conditions.

Figure 1: The projected percentage change in Scotland's population by age group, 2014-2039 (National Records of Scotland, 2015, p.14)



Additionally, Scotland has been facing economic pressures through funding cuts across public services - Christie Commission (2011) reports a shortfall of approximately £39 billion across the years of 2010 – 2026. In this era of funding constraints, flexible resourcing and new and different ways of working are sought after to meet the needs of the people and communities the services seek to support. For example, in the past, significant public spending (about 40%) was devoted to interventions that could have been avoided by earlier preventative measures (Christie Commission, 2011). However,

since the Public Services Reform Scotland Act (2010), the focus has shifted to targeting the causes of social problems in addition to the consequences.

In spite of the constraints on public spending, the rising demands due to social and demographic changes or the economic downturn, Scotland strives to reduce social and economic inequalities in the country (Christie Commission, 2011). The political and governmental leadership puts significant pressures on, and efforts towards, the development, improvement and defragmentation of public services. While the generally stable political climate in Scotland may currently be facing some uncertainty due to the country's vulnerability to changes in the UK policy and UK-wide decisions, the country's leadership emits full support and commitment to the improvement of public services.

2.1 Scottish healthcare

Given that the early improvement work in Scotland emerged within the healthcare sector as outlined below and throughout the paper, it is important to set the context of Scottish health care in particular. While originally created in 1948, the National Health Service Scotland (NHSScotland) became independent from the other three UK National Health Service systems – England, Wales, and Northern Ireland – in 1999 following the creation of the devolved Scottish Government. The NHSScotland is the national health care provider in the country and comprises of 14 Territorial NHS boards as well as seven Special NHS boards (NHS Education for Scotland, NHS Health Scotland, NHS National Waiting Times Centre, NHS24, Scottish Ambulance Service, The State Hospitals Board for Scotland, and NHS National Services Scotland) and one public - body (Healthcare Improvement Scotland). NHSScotland employs over 160,000 staff – or 139,000 after adjusting for part-time working, including over 59,700 nurses and midwives, and 23,000 doctors, GPs and allied health professionals, including pharmacists and dentists (Information Services Division, 2017).

Table 2: NHSScotland Workforce Composition (Information Services Division, 2017, p.5)

Staff group	**Headcount (after adjusting for part-time working)**
All NHSScotland Staff	**139,262**
Nursing and midwifery	59,709
Medical	12,404
Dental	643
Medical and dental support	1,992
Allied health professions	11,479
Other therapeutic services	4,153
Personal and social care	1,152
Healthcare science	5,486
Ambulance services	2,575
Administrative services	25,188
Support services	13,709
Unallocated/ not known	771

Within the healthcare context, it is important to highlight the Scottish health record and its challenges. Over the last 20-30 years, alcohol has become the problem that Scotland has always been stereotypically associated. In the early 2000s, alcohol related mortality

rates in Scotland were approximately twice those of the rest of the UK. However, Scotland has also seen a rapid decrease in its rates since the peak (Office for National Statistics, 2016). Additionally, Scotland is facing increasing levels of health inequality suggesting that people living in the most deprived areas develop multimorbidity 10-15 years earlier than those living in the most affluent areas particularly due to socio-economic deprivation (Barnett et al., 2012).

On 1st April 2016, the Health and Social Care Integration Act came into force. This reform brings together local council care services and the NHS under one partnership in each area in order to improve quality and consistency of care for people of all ages. This new joint responsibility aims to ensure better and more coordinated patient journeys between health and care settings enabling people to safely stay at home or in a homely setting (The Scottish Government, 2016). The resulting system re-design has patient benefits at heart and helps Scotland to move from reactive interventions to preventative care. Simplifying the landscape of those engaged in different improvement works in this space, the Improvement hub (ihub) was created by combining some of the previously established improvement-focused organisations – the Improvement Directorate at Healthcare Improvement Scotland, the Joint Improvement Team, and the Quality & Efficiency Support Team within Scottish Government.

1.1.1 Key national organisations currently working on improvement with NHSScotland

Many organisations and people within NHSScotland, the Scottish Government and beyond are involved in and committed to improvement work in Scotland. The following list of organisations, while not exhaustive, provides an overview of the key sources of, and resources for, current improvement work in Scotland:

Healthcare Improvement Scotland (HIS) – a public body of NHSScotland, previously known as NHS Quality Improvement Scotland, the lead of the Scottish Patient Safety Programme (SPSP). Includes the **ihub** – a new improvement hub run by HIS to support improvements in health and social care service delivery and the development of improvement culture and infrastructures – a merger of the former **Joint Improvement Team (JIT)**, the **Quality and Efficiency Support Team (QuEST)**, and the Improvement Directorate at HIS – established 1st April 2016;

Leading Improvement Team (LIT) in the Scottish Government (SG) – enabling SG and Scottish public services achieve better outcomes for Scotland through the application of an improvement approach;

NHS Education for Scotland (NES) – a special NHS board responsible for developing and delivering training and education for the Scottish healthcare workforce;

Improvement Service – the national improvement service for local government in Scotland. Its purpose is to help councils and their partners to improve the health, quality of life and opportunities of all people in Scotland.

Quality Scotland – a charitable, member-based organisation working across Scotland in the private, public and third sectors providing expertise and resources to deliver continuous performance improvement.

Institute for Healthcare Improvement (IHI) – Scottish Government's quality improvement Strategic Partner, an independent non-profit organisation based in the USA.

3. Standing on the shoulders of giants: Early improvement works in Scotland

Improvement efforts in Scotland are most known for the Scottish Patient Safety Programme – the first national and systematic approach to patient safety improvement in the world. Yet, at this point Scotland already had a long history of various improvement and innovation projects, particularly within the health care sector. And while improvement was not understood in the same way as it is now, all these efforts aimed at improving care for the patients.

Dating back 5 decades, the earliest works revolved around audit, clinical guidelines, and evidence-based best practice. A prominent example of the clinical audits using clinical data is Sir Graham Teasdale and Bryan Jennett's (1974) development of the Glasgow Coma Scale that allows for an assessment of the level of consciousness of patients with acute brain injury. Regarding guidelines, the *Scottish Intercollegiate Guidelines Network (SIGN)* was formed in 1993 with the objective of improving the quality of health care for patients through the development and dissemination of evidence-based clinical guidelines. Since 2005, SIGN forms part of NHS Quality and Improvement Scotland, now Healthcare Improvement Scotland, and has approximately 150 guidelines available (SIGN, 2016). In 1994, the *Scottish Audit of Surgical Mortality* was introduced to reduce deaths under the care of surgeons and reached over 1100 voluntary participants and 3000 yearly death reviews (SASM, no date). Since 2001, the *Scottish Medicines Consortium (SMC)* has been in charge of appraising all new medicines incoming into the country based on clinical and cost effectiveness. Complementing the evidence and advice provided by SIGN and SMC, the *Scottish Health Technologies Group* focuses on new healthcare technologies since 2008. In the same decade, Scotland developed its own unique patient identifier – the CHI number. The Community Health Index (CHI) is a population register to ensure that patients can be correctly identified, and that all information pertaining to a patient's health is available to providers of care. The CHI number uniquely identifies a person on that index.

The period of about 1998-2003 took the form of two streams of activity: 1) the Strategic Change Unit within the Scottish Government Health Directorate which focused on leadership and organisational development, and 2) a liaison with key improvers within the Designed Healthcare Initiative run by the NHS Modernisation Agency in England, one of the first initiatives attempting to understand and improve healthcare processes. The latter allowed Scotland to learn and introduce the concepts of process mapping and taking out wasteful steps that didn't benefit either patients or clinicians. In 2002-2003, these two activities were brought together to form the Scottish Government Centre for Change and Innovation (CCI). Starting to tap into the emerging improvement knowledge coming from IHI and through connections with the English Modernisation Agency, the CCI realised the potential of improvement science for making Scottish healthcare better. At this time, the CCI ran various national programmes, with voluntary participation, including the Outpatients Improvement Programme (2003 – 2006), the Scottish Primary Care Collaborative (2003 – 2009), the Cancer Service Improvement Programme (2003 – 2006), and the Mental Health Improvement Programme. It was a time of creating a toolkit of methodologies which varied from lean methodologies, through process mapping and mapping patient pathways, to the first applications of the Model for Improvement and the

IHI Collaborative method used in the Primary Care Collaborative with the help from the Modernisation Agency.

These early improvement programmes were met by many challenges. The early knowledge of improvement science that was available was pieced together from various sources and therefore potentially missing the necessary methodological rigor. There was a shortage of improvement capacity and capability within Scotland creating an operating model entirely based on seconded members of staff, something that became no longer sustainable once healthcare started facing financial cuts. The alignment to performance and delivery was confusing for the services expecting judgement and performance management. It was possibly a way of thinking most senior management in the health boards, or the service staff, were not ready to understand and learn about. Moreover, there was an emerging stream of adopting lean approaches across the health boards leading to further confusion over competing ideologies.

Taking the learning from the first wave of improvement programmes, a second wave was introduced: The Unscheduled Care Collaborative (2004 – 2007/8), the Diagnostics Collaborative (2005 – 2007), the Planned Care Improvement Programme (2006 – 2008) focusing on patient flow, and more recently the Mental Health Collaborative (2008 - 2011), and the Long-term Conditions Collaborative (2008 - 2011). These programmes were run nationally, expected participation from all NHS Health Boards and were beginning to introduce whole system thinking (Scottish Executive, 2006). In 2005, CCI was rebranded into the Scottish Government Improvement & Support Team (IST) and brought under the new Health Delivery Directorate. This meant more focus on performance targets and delivery, particularly within the context of waiting times and access. As the Patient Safety Programme started developing, IST rebranded again into Quality & Efficiency Support Team (QuEST) continuing its programme activity and developing new ones.

Scotland also participated in UK-wide efforts, such as the Safer Patients Initiative (SPI) launched by the Health Foundation (2004-2008) and supported by the Institute for Healthcare Improvement (IHI). Together with one hospital in England, one in Wales, and one in Northern Ireland, the NHS Tayside territorial board and its Ninewells hospital in Dundee took part in Phase I of this major improvement programme targeting patient safety in the UK. Then, Phase II spread to further 20 hospitals including in NHS Dumfries and Galloway and NHS Ayrshire and Arran (Health Foundation, 2011). SPI focused on improving reliability of specific processes of care within four designated clinical areas where there were known strategies for improving safety and testing these on an organisation-wide basis within NHS hospitals. Once tested in the first 4 sites with each reporting more than 50% reduction in adverse events (only a portion of identified interventions included), the aims for SPI Phase II were announced: over a 20-month period, to reduce adverse events by 30% and to reduce mortality by 15% in each NHS trust or health board. All of the sites reported improvement within at least a half of the targeted 43 process and outcome measures (Health Foundation, 2011).

4. Scottish Patient Safety Programme

4.1 Pre-launch Phase

At the time, global evidence suggested nearly 1 in 10 patients admitted to a hospital would be unintentionally harmed and that over 40% of the incidents could have been avoided (de Vries et al., 2008, Weingart et al 2000, Crossing the Quality Chasm, 2001). Facing this evidence, leaders came together in Scotland to start working on the idea of a national Scottish Patient Safety Programme (SPSP). The establishment of this work was a result of a combination of multiple triggers and factors: 1) robust research evidence of what needs to be done to achieve safer clinical care existed and was available; 2) the Safer Patients Initiative (SPI) running since 2004 across 3 health boards and championed by NHS Tayside was getting excellent results demonstrating safety can be improved; 3) there was strong ministerial and governmental will and commitment to making healthcare better while focusing on evidence-based policy; 4) key senior leaders had an in-depth knowledge of, and passion for quality improvement. Thus far, no country had taken a national approach of quality improvement to make care safer.

As outlined in *Better Health, Better Care: Action Plan* (2007), improving the quality of healthcare is a strategic priority for NHSScotland. With a focus on safety and the aim to reduce harm in healthcare, the *Scottish Patient Safety Alliance* was established in 2007 by creating a partnership between the Scottish Government, NHSScotland, the Royal Colleges and other professional bodies, the Scottish Consumer Council and the Institute for Healthcare Improvement (IHI). Building on the successes of SPI, the Alliance was to extend the work from the three NHS boards participating in SPI to all NHS boards in Scotland. It was formed to oversee and guide the development, launch and implementation of the Scottish Patient Safety Programme (SPSP), the first-ever national undertaking of its kind.

The core of the team working on the programme development were: Derek Feeley, then Scottish Government Director of Healthcare Policy & Strategy and current President and CEO at IHI; Sir Harry Burns, then Chief Medical Officer; Professor Jason Leitch, then Scottish Government National Clinical Lead for Safety & Improvement; Jane Murkin, who became the National Coordinator for the SPSP; and Dr Pat O'Connor, who was brought into Scottish Government from NHS Tayside as a National Patient Safety Development Advisor. A team of committed and passionate individuals.

Recognising that NHSScotland did not have the depth and breadth of improvement skills needed, an international tender for a partner to support the work was announced. In August 2007, IHI was contracted as a technical partner for the SPSP and brought in their knowledge of improvement science together with experience from a broad range of international improvement programmes, including the 100,000 Lives Campaign. The planning and pre-work for a national programme started right away. IHI's expertise was key at this stage – whilst the work came from the Scottish system, IHI was able to provide full support from initiation with the aim to phase out this support over time. IHI teams and local senior leaders set up meetings with health boards; visited different hospitals and professional organisations to help them understand where to start the work; met with academic entities to enable them to voice their concerns and raise their questions as well as to help understand best practices for implementation given the context. All this was designed to build will across these constituencies.

The SPSP Breakthrough Series Collaborative had a soft launch event in March 2007 but it wasn't until January 2008 that the first learning session and an official launch took place in Tayside where the programme was announced by Ms Nicola Sturgeon, MSP,

then Cabinet Secretary for Health and Wellbeing together with the Chairman of NHS Quality Improvement Scotland (NHS QIS). Moving on from working only with volunteer teams, SPSP now included all health boards in Scotland. Interestingly, whilst the programme was not voluntary, it never needed to be officially mandated – the approach of quality improvement rather than performance management was appealing to both the professionals and to the health boards.

The introduction of the programme was not unchallenged. While the majority was supportive, there were of course doubters and criticism. Some felt this was just another project that would pass by, some were not so keen on the involvement of a US based company and others saw the ambitious goals as something they might never be able to achieve. It was a challenge to convince people they were not delivering evidence-based care reliably, 100% of the time. Tensions between the new methodology and previous improvement efforts were observed due to a misaligned understanding of how the new approach can add to the existing work and help increase its pace and scale. It was an important lesson for Scotland to not unnecessarily alienate certain groups of stakeholders by presenting the new QI method as the 'golden chalice' that would solve all problems. But people came together once they could see improvements in outcomes and safety.

On the political level, it was sensitive to admit people were being harmed within the national healthcare system and it took some time to accept the use of the language around harm and mortality. Needless to say, the political and governmental leadership embraced quality improvement as the way forward for Scotland.

Demonstrating this commitment to quality improvement since 2008, the SPSP has grown from Acute Adult Care and spread into areas of Mental Health, Primary Care, Maternity and Children, Healthcare Associated Infections, Medicines, and more recently the Primary Care programme is doing preparatory work in Community Dentistry, Community Pharmacy, and Community and District Nursing.

PROGRAMME	**LAUNCH**	
Phase I		
Acute Adult Programme	2008	
Paediatrics Programme	2010	
Phase II		
Mental Health	2012 (September)	
Primary Care	2013 (March)	
Maternity and Children (MCQIC)	2013 (March)	
Healthcare Associated Infections	2015 (February)	
Medicines	2015	
Phase III		
Community Pharmacy	2014 (November)	Prototyping work, exploring key areas of harm, and testing interventions with a small number of sites
Community Dentistry	2015	
Community & district nursing (care homes)	2016	

4.2 Phase I

The programme was initially introduced in Acute Adult healthcare settings with the aim to reduce inpatient mortality for any cause by 15% and to reduce hospital adverse events, as measured by the IHI Global Trigger Tool, by 30% across Scotland's acute hospitals in 5 years (Haraden and Leitch, 2011).

IHI brought and introduced their tried and tested evidence-based clinical changes across 5 work streams: critical care, general ward, medicines management, peri-operative care, and leadership culture. They had content developed in each package together with plans for measurement and data collection. So the question was not what needs to be done; rather it was how to do it.

SPSP Adult Acute Change Package	Aim
1. Critical Care:	Improve Critical Care Outcomes (Reduce mortality, infections and other adverse events)
2. General Ward:	Improved general ward outcomes (Reduced infections, crash calls, pressure ulcers, AE in CHF and AMI patients)
3. Medicines Management:	Provide safe and effective medicines management (Reduce adverse drug events: r/t high risk processes and medicines e.g. medicines at the interface, anticoagulation)
4. Peri-operative Management:	Improved peri-operative outcomes (Reduced peri-operative adverse events: infections, cardiovascular events)
5. Leadership:	Provide the Leadership System to Support the Improvement of Safety and Quality Outcomes in your Board**.**

The SPSP was run using the Breakthrough Series Collaborative approach, with learning sessions every 3 months alternating with action periods. The learning sessions were notably well attended by chief executives and leadership teams from the health boards which allowed for break-out sessions and team meetings led by chief executives where the teams would plan how to efficiently and effectively put the change packages into place while adapting to their local settings. It was very helpful to have NHS Tayside, one of the strongest sites in SPI, leading by example.

Each NHS board had a nominated SPSP programme manager, who played a key role as part of the leadership and core coordination and the delivery team at Board level, with responsibility for embedding continuous quality improvement as an integral part of planning and delivery of care.

Not all work streams progressed at the same rate. Smaller units where multidisciplinary working was the norm, such as Intensive Care Units, were able to deliver improvements most quickly. Surgical theatres showed significant progress - surgical mortality had remained stagnant for the past 20 years but in 4 years of SPSP work it was reduced by a third. (Information & Services Division, 2012)

Data support was provided by IHI and the Information & Services Division (ISD) at NHS National Services Scotland. In the early stages, the majority of the data was not routinely collected, and was generated through the work of SPSP.

Furthermore, a new model for measuring Hospital Standardised Mortality Ratio (HSMR) exclusive to Scotland was developed by ISD in partnership with IHI. Monthly reports were produced for each of the teams in each of the hospitals showing them what they were doing well and what they could be doing better. Good quality data was crucial and as the programme was generating more data, it started creating credence and integrity of the programme which led to a greater belief that it was working.

However, the data measurement platform became a challenge. The IHI Extranet, designed to collect data, present data and share information, is a good tool for pilot stages, small scale projects or for small health boards. But once the SPSP was scaling up across more and more wards and surgical theatres and intensive care units, this tool

could no longer handle the amount of data. It became difficult to bring the data together and feed it up the governance chain. Some attempts for new systems to better manage the data emerged locally in Lothian (QIRNET) and in Lanarkshire (LanQIP) with varying success rates. Unfortunately, this area has not yet been fully resolved and to date, and most health boards submit their data in modified excel spread sheets to HIS where the data get amalgamated into quarterly reports.

SPSP, together with NHS Education Scotland focused on building the infrastructure to support this emerging improvement work and building capacity and capability across Scotland to ensure that there were enough skilled people to manage the programmes locally. This included Improvement Advisors and the development of a clinical fellowship for quality and safety.

In 2010, the Healthcare Quality Strategy for NHSScotland was published and launched by the Cabinet Secretary for Health and Wellbeing. This was a revolutionary moment for Scotland as it set out the ultimate aim for NHSScotland "to deliver the highest quality healthcare services to Scotland, and through this to ensure that NHSScotland is recognised by the people of Scotland as amongst the best in the world" (The Scottish Government, 2010, p.1). It set out three quality ambitions – for care to be person-centred, safe, and effective. This government document places improvement at the heart of national healthcare strategy and set out its aim to expand the successful work of SPSP into other care areas.

4.3 Phase II

The second phase of the programme is defined by building on the successes achieved in Acute Adult Care and spreading the approach into other areas of care. Planning was already under way for safety collaboratives in mental health, primary care, and maternity and paediatrics. In comparison with the early days of scepticism about 'another programme', these new areas were pulling the programme towards themselves.

It was however, also recognised that the work on acute care was still to be continued. In 2012, the Cabinet Secretary for Health & Wellbeing announced the new aims for the Acute Adult programme to be to further reduce mortality and harm experienced by patients in Scotland's acute hospitals and to ensure that 95% of patients receiving care are free from harms such as pressure ulcers, falls, cardiac arrest and catheter acquired infections by the end of 2015.

Each of the new programmes had its specificities as they needed to undergo some adaptation to the context of their care setting. It was harder for local *Primary Care* teams to attend national learning sessions and so more was done regionally and virtually. It was also recognised this is different type of care that will require new solutions. The aim of the Primary Care programme within SPSP was for all NHS boards and 95% of primary care clinical teams to be developing their safety culture and achieving reliability in three high risk areas by 2016. At the launch of the programme in 2013, the focus was on General medical services but since, prototyping and testing in Community pharmacy, Dentistry, and Community and district nursing (care homes) have been under way with plans to expand to further professional services in the future.

In *Paediatrics*, the challenge was trying to take interventions from an adult setting and shift them to a children setting. Moreover, the patients in maternity and paediatric care

are most often not sick. The aims of the Maternity and Children Quality Improvement Collaborative (MCQIC) are three-fold: maternity, neonatal, and paediatric care. All the streams had the aim to reduce avoidable harm in women and babies/ neonatal care/ paediatric care by 30% by 2016 with a focus on different relevant interventions (HIS, 2016c). While provisional national outcome data for 2015 indicated a 19.15% reduction in the rate of stillbirth compared with 2012, the data also indicated that more work needed to be done on neonatal mortality and postpartum haemorrhage to demonstrate improvement.

Mental Health Safety had a very particular journey marked by more freedom as the research evidence in this area is limited and often contested, there were no existing interventions, and it was the first time improvement was used in a setting with patient interaction and with such a focus on the service user. Often seen as a 'Cinderella service' that gets left behind, there was tremendous will once Mental Health services were included in the SPSP. The Mental Health stream of Patient Safety built on the work done in the Mental Health Collaborative run from QuEST. It became a natural extension rather than a new initiative and had a continuity of approach as the focus remained on in-patients. The work on interventions had to be designed from scratch and it was decided to co-design the programme priorities alongside the service users, carers, clinicians, and the evidence. This led to a sense of a bottom-up approach to building its own evidence which was based around safety principles of risk assessment, restraint, medicine safety, self-harm and violence reduction. The meaning of harm had to be redefined for the mental health context and two types were identified: Type 1 – harm that the system does to the individual, and Type 2 – harm that the individual does to themselves as a result of a complex mix of external factors. To help assess the fear of harm on a ward, the Patient Safety Climate Tool was developed by a service-user led focus group and supported by the programme team.

The work on *Medicines* was developed to bring together all improvement activity related to medicines from the existing programmes, allowing for more of a whole system perspective. The *Healthcare Associated Infections* (HAI) programme works primarily in acute care and aims to develop and test approaches to reduce HAIs.

The national approach adopted in this phase by the new National Coordinator for the programme focused on introducing a structure and governance to programmes that had evolved in very individual ways over time. A stage of developing further support to organisations as a whole started emerging across programme commonalities: leadership, teamwork, communication, and strategic planning, all alongside the interventions. At team level, new processes for reporting data, assessing data, and reviewing data within governance structures were brought in to better the leadership's understanding of what was happening and what needed further support. This also led to an increased confidence in Scottish Government that SPSP was delivering on its aims.

Aligned with a broader move to more local work and to access all those involved, national learning sessions of the Breakthrough Series Collaborative are now taking place once a year and are accompanied by local context-specific sessions and regional events. Another change has involved moving from traditional programme-specific site visits to a combined site visit in which the whole Patient Safety Programme visits the whole NHS board rather than conducting multiple visits by each strand of the safety work. This also

gives the boards an opportunity to bring all strands of their safety improvement work together.

In 2012, IHI's initial 5-year contract expired. Moving from the closer, safety-based support, towards a wider remit for both the progression of SPSP and the progression of quality improvement across public services, IHI won the tender for a new contract and became the Strategic Quality Improvement Partner for the Scottish Government in the summer of 2013. Since then, this wider remit has progressed the relationship between the two partners towards one of support that is sustainably co-designed and co-produced by the partners. IHI's role was to work in partnership with SG, HIS, and NES to build sustainable capacity and capability to continuous quality improvement and deliver real and high impact improvements. They also worked on adding value and provided support to existing and emergent quality improvement activities across the NHS and wider public services in Scotland. IHI also facilitated connections with improvement organisations around the world. This 3-year contract has recently been extended to 2018.

4.4 Key results achieved across the various strands of SPSP as at March 2016

Acute Adult	**Primary Care**	**Maternity & Children**	**Mental Health**
End of Phase II in March 2016	*End of Phase in March 2016*	*End of Phase in March 2016*	*End of Phase II in September 2016*
- 16.5% reduction in Hospital Standardised Mortality Ratios (HSMR) from the 2007 baseline - 21% reduction in 30-day mortality sepsis - 19% reduction in cardiac arrest rate for 11 out of 22 hospitals that have reported consistently from February 2012 to December 2015 - 8 out of 15 reporting NHS boards from March 2014 to February 2015 show the percentage of patients discharged from hospital without any of the Scottish Patient Safety Indicator (SPSI) harms is exceeding the aim with a median of 99.2% (aim 95%) *HIS (2016b)*	- 93% GP surgeries across Scotland completed the safety climate survey during 2014-2015, an increase of 3% over the previous year - 74% of all GP surgeries are carrying out structured case note reviews - 83% of all GP practices have introduced the care bundles the programme developed, to improve reliability in at least one high risk area. - increased awareness of safety issues in the community and the importance of teamwork and culture in identifying and addressing these issues. *HIS (2016e)*	- a 19.5% reduction in stillbirth rates in 2015 (provisional data) compared with 2012. - More work on neonatal mortality and postpartum haemorrhage needs to be done to demonstrate improvement. - Currently data is insufficient to reliably demonstrate impact and improvement in the neonatal and paediatric care work streams. *HIS (2016c)*	- increasing number of wards and units showing improvements in rates of violence (17 wards) and restraint (13 wards), seclusion and percentage of individuals self-harming (6 wards) – there are examples of restraint reduction by 57%, self-harm reduction of 70% or violence reduction of 78%) - the Safety Principles in Mental Health have been identified as interactions, tools and processes that can contribute to a reduction of harm measurable through the SPSP-MH Outcome Measures - over 600 facilitated Patient Safety Climate Tool surveys completed and over 3,000 staff climate surveys undertaken - NHS boards are submitting their leadership reports every 2 months – these are aggregated and distributed to all SPSP-MH programme managers and leads for sharing of best practice and networking - increasing service user, carer, and third sector involvement in SPSP-MH, including attendance at learning sessions *HIS (2016d)*

4.5 Phase III

The Acute Adult and Primary Care programmes recently published a 90-day Process Report in which they agree the focus for the next stage for both programmes (HIS, 2016a). Responding to the need to look at the whole patient journey rather than focusing on silos in service delivery, the overarching themes for the next stage of both programmes are: 1) prevention, recognition, and response to deterioration; 2) medicines; and 3) system enablers for safety. Other streams of work will continue to aim at reducing harm with Primary Care focusing on safety culture, safer medicines, and safety across the interface. The Acute Adult work will focus on pressure ulcers, falls, catheter-associated urinary tract infection (CAUTI), deteriorating patient, including cardiac arrest and sepsis, and medicines reconciliation. New work streams of acute kidney injury and emergency laparotomy are also being developed.

An expansion into new care sectors is also proposed. Exploratory work to identify and test interventions to reduce harm across Community Pharmacy, and Community Dentistry, is under way. This new work is going through prototyping in a small number of boards in order to develop and test reliable changes and interventions before they are spread across the country.

Given the maturity of many of the programmes, Scotland now needs to focus on *sustainability of the gains*. Many leaders are highlighting the need to properly embed the work into the system before moving on to other areas. It is not enough to test and get reliable results, the work has to become day-to-day business. To avoid change fatigue, this work has to be built into the fabric of the organisation. To achieve that, outcome measures become more important than process measures at the stage of sustainable and sustained improvement. Some might argue that the national focus has been lost and the work is not as joint up, but others would say this just means the work has become embedded in the day-to-day business. Furthermore, to take sustainability forward, some argue that the focus needs to move from reacting to existing problems to proactively managing the threats and preventing them. With the help of a grant from the Health Foundation, Scotland is already well underway thinking about, and working on, prevention.

Various initiatives have emerged from or beside the SPSP. Using patient safety stories, the ‘What matters to you?’ initiative was launched to enhance patient safety and patient experience. Bringing a human side to patient safety work offers an opportunity to reflect on experiences. It led to activities such as nursery visits to old people’s homes because it was found that the two groups enjoy spending time together. Another important programme that emerged is the *Person-Centred Health and Care Collaborative*. It focuses on relationships and patient stories as a significant component of the big picture within quality healthcare. Taking the whole system approach, the *Whole System Patient Flow Improvement Programme* was launched by QuEST in 2013 with the aim to ensure that patients receive the right care, at the right time, in the right place, by the right team, every time.

The Scottish work on Patient Safety also inspired other large scale patient safety programmes across the world, including Norway, England, Portugal and Singapore.

5. Spread of Quality Improvement into public services beyond health

As the SPSP was gaining ground, positive outcomes were becoming more and more visible and the SPSP family began branching out into other areas of healthcare, senior Scottish Government leaders started to see the transferability of the methods used in this programme into other areas of government business. Initially, the discussion revolved around improving health of the population and reducing health inequalities in Scotland. There was also growing evidence directing the focus towards the early years of life (Allen, 2011; Anda et al., 2006) moving towards community health and into community planning partnerships. And so it was agreed to take this successful methodology with the aim of reliably applying it across Government change programmes.

Taking the learning from the work on patient safety and aiming to create the correct conditions for improvement that would be common across all Government activities, the **3-step Improvement Framework for Scotland's Public Services** was introduced across Scottish Government. Its purpose was identified as being "to help unlock and channel the collective knowledge and energy of [Scotland's] people towards a common goal of real and lasting improvement across [Scotland's] public services" (The Scottish Government, 2013, p.1). With its aim to create a common language and a common way of thinking about how to tackle any issues within the Scottish public services, the framework was introduced to all the public service leaders in November 2011 at the Scottish Leaders Forum Conference with the theme of Public Service Improvement.

The Early Years Collaborative was the first attempt to apply this framework in the broader environment of public services. Subsequently, the Leading Improvement Team was created to promote this framework.

5.1 Early Years Collaborative

The Early Years Collaborative (EYC) came on the back of a movement highlighting the need to improve health and wellbeing of children in their earliest years in order to improve the overall health of the whole population (Allen, 2011). Evidence shows that the risk of childhood adverse experiences (e.g. abuse, neglect, various stress factors) negatively impact on the likelihood of alcoholism, violence, physical illness or developmental delay in the child's future life (Anda et al., 2006). If children are to grow into healthy adults, we need to provide them with an environment (housing, wealth, education) that allows them to maximise their contribution. Additionally, economic modelling on the financial impacts of poor outcomes for children suggests that £1 spent on early intervention in the early years can potentially save £9 in the longer term. All this evidence fitted well with the prevention agenda set out by the Christie Commission (2011) report and together the initiative had fantastic support across ministerial and senior leadership levels. The EYC, therefore, takes a life-course approach to the problem focusing on a child's life from pregnancy through early development to readiness for school.

Just as with many other areas, the early years' work was struggling with implementation of their policies and their Early Years Framework. At one of the Early Years Taskforce meetings in 2011, Harry Burns, the Chief Medical Officer, made the first suggestion to explore the quality improvement methodology that has seen great success in the patient safety work. Soon after, Mike Foulis, the Director of Children & Families at the time, brought the 3-step Improvement Framework and The Improvement Guide to all his deputy directors. Many discussions followed in order to understand how the methodology could be applied to Early Years work and to start designing it and creating the conditions required to achieve this.

It quickly became understood that if there is to be improvement work done in early years, it must be done jointly and collaboratively across different sectors and agencies and this must be community driven. At this stage, the idea of working with people from agencies with different value bases and different language was quite daunting but the world of children proved to be a place where everyone can subscribe to the common aim. Initially, the leadership hoped to engage 4-6 Community Planning Partnerships (CPPs) but the ideas were so compelling that all 32 CPPs wanted to participate. Rather than building new structures, the EYC decided to rely on existing governance structures - the CPPs which include social services, health, education, police and third sector professionals.

The overarching ambition for the EYC became to *Make Scotland the best place in the world to grow up*. The complexity of the issue at hand did not allow for one aim and so it had to be broken down into bite-sized chunks. Long lists of aims were created and ultimately it was decided to divide them by different points in the child's lifecycle, and group them in terms of reaching developmental milestones. The EYC started with 4 work streams, one to support each of the age-based stretch aims and a leadership work stream. The fourth age-based stretch aim was added at learning session 4 in January 2014 ensuring EYC now fully covered the age range of the Early Years Framework (0-8 years).

Workstream	Age group	Stretch Aim
1	-9 months to 1 year	By end of 2015, ensure that women experience positive pregnancies which result in the birth of more healthy babies as evidenced by a reduction of 15% in the rates of stillbirths and infant mortality.
2	1 year to 30 months	By end of 2016, ensure that 85% of all children in each CPP meet all expected developmental milestones at the time of the child's 27-30 month child health review.
3	30 months to start of school	By end of 2017, ensure that 90% of all children in each CPP have reached all developmental milestones by the time the child starts primary school.
4	Start of school to P4 (5 – 8 years)	By end of 2021, ensure that 90% of all children in each CPP have reached all developmental milestones and learning outcomes by the end of Primary 4.
5	Leadership	

** Aims as set out at launch of EYC. Work stream 4 and its aim were added in January 2014.*

Following this very rapid design phase, the EYC was launched in October 2012 and had its first learning session attended by over 750 people in January 2013. The traditional model of a breakthrough series collaborative had to be amended because the EYC wasn't going to last only 18 months, it is on-going and growing. This felt like a social movement.

There were fundamental differences between EYC and SPSP from the outset. With SPSP initial work on acute care, the concept and method of improvement had to be "sold" to the teams but the change packages were evidence-based and brought by IHI. With the EYC, teams were generally on-board because there was evidence that the approach worked elsewhere, but the change packages and bundles were not known. Hundreds of projects started running across the country. It was challenging to manage but the energy and enthusiasm were tremendous. By the time the programme was one year old, some of these key change areas were starting to be identified, including early intervention in maternity services, parenting, attachment, income maximisation, continuity of care in transitions between services, 27-30 month Child Health Review, and family engagement to support learning. All these themes have emerged nationally and are to date being adapted into packages. Champion sites for each theme have been identified and given more support to develop the intervention better in order to get it ready for spread. The focus for the future is moving from doing hundreds of things to doing these few high impact changes well and across the system – moving from incremental improvements to breakthrough improvements.

IHI was particularly involved at the beginning. At this time, there was little trained expert improvement capacity within the Children & Young People Directorate, who were leading the collaborative, and so capacity building became a priority. IHI brought a team over in the summer of 2012 to teach QI and then led the first few learning sessions, later gradually passing on the torch to the local leaders and moving into a more strategic role in the background. IHI were able to bring experience from community health and community development which was important in being able to illustrate the method with examples from beyond healthcare.

In terms of results, there are success stories from various areas. As for work stream 1, while more work on infant mortality needs to be done to demonstrate improvement, EYC together with MCQIC reported a 19% reduction in stillbirth rates by the end of 2015, surpassing the aim of 15%. Results for work stream 2 are not available at the time of writing. However, successes are being celebrated in individual local projects. For example, work on income maximisation and healthy start vouchers for mothers-to-be in Edinburgh shows significant uptake of the vouchers and what it meant for nutrition for the mums and for the babies. A number of CPPs did work on bed time stories which are known to have a positive impact on attachment, brain development, literacy, getting comfortable with books, etc. One school reported much higher engagement and level of reading of the children coming from a nursery that improved access to books and encouraged children to choose a book every day. Similarly, powerful results regarding attachment and concentration of an autistic boy alongside the increased self-esteem and parenting skills of his mother were achieved through bed-time stories. These examples may be rather granular but we might be looking at a generation before we see the full scope of the

results – we need to wait until the children are adults to see what impact the work has had on them.

5.2 The Leading Improvement Team

While the launch of the 3-step Improvement Framework was successful and played an important role in triggering the Early Years Collaborative, giving people this gift of knowledge appeared insufficient. Therefore, a decision to provide more support for the spread of the approach in the form of a specialised team was made around March 2012. The Leading Improvement Team was established to promote the 3-step Improvement Framework across all of Scotland's public services, building capacity to do the improvement and helping projects to use improvement methodology. The team officially launched in January 2013.

As a new improvement organisation in a landscape of multiple others, it was crucial to establish what the team would do and how, to build relationships, to ensure the team would communicate a consistent message and that existing improvement organisations would accept the team as a distinct unit that they should not feel threatened by; rather that a collaboration between them would be encouraged.

Some of the team members had already completed the 10-month Scottish Improvement Advisor Programme prior to start, others came with experience of improvement from working on the SPSP. This existing capacity & capability allowed the team to start delivering their own training courses and replace the 'bought-in' three-day course from IHI. The first course of Quality Improvement Practitioner Training Programme ran in March 2013 and to date, the team have provided training for 23 cohorts of over 20 participants each from a wide range of sectors and organisations.

As with many improvement projects, LIT started working with the willing. "We can help anybody […]. There will be a way we could help you if you want to – you have to work, you have to do it but we can always help you" - Fiona Montgomery describes their initial approach which relied on people asking for help and support and on word-of-mouth. Thanks to the positive buzz the team created, progressively they got better at actively seeking those that are willing and even entering some priority areas within public services. The team have been supporting projects within education, criminal and social justice, social services, local government, public bodies, the third sector and internally within the Scottish Government.

Justice is one of the areas where LIT became involved early and quite widely. The team supported improvement work with the Scottish Prison Service that focused on a change in process in parole preparation that would improve the quality and completeness of parole dossiers and the timelines of the process. A related project with Parole Scotland looked more holistically at whether the right information was being provided to the Parole Board Members, and also looked at the communication between Parole Board Members and other staff to better their understanding of each other's processes. Additionally, aligning to the agenda of the Cabinet Secretary for Justice to reduce offending particularly among women, the Penal Policy Improvement Project was launched to reduce the amount of remand and short-term custodial sentences in favour of supervised bail that allows the offenders to live at

home under supervision. This is currently being piloted in three different areas with a different focus – supervised bail for women, support for care experienced young people, and mentoring for vulnerable groups. Extending into community justice work, LIT is also providing training for the Building Safer Communities programme aiming at reductions in the numbers of victims of crimes.

LIT has also been working with the Crofting Commission around a new delegated decision-making structure which helped cut the decision-making time by about 2 weeks and simplified the process for their board members and all staff. LIT have also provided support during Historic Scotland's merger into Historic Environment Scotland and are currently supporting a merger that the Forestry Commission is undergoing. At a community level, LIT supports a project called Building Connections, a programme designed to help people navigate the benefits system, as well as the Local Authority Support Programme forming community hubs for support and resources.

The challenge LIT has been facing is selling the stories of success from their projects, as many teams do not wish to publicise how 'bad' they used to be before they improved. However, more projects are coming in and the team is always ready to learn, share what they learned and allow others to learn it too.

5.3 Raising Attainment for All (RAfA) Programme

With the work on Early Years advancing successfully, there was a long-standing interest to extend the approach into the education sector. To test out if the improvement method could work in an educational setting, a project called The Self Improving Schools Pathfinder was launched in October 2013 in 6 schools for a short period of 6 months. It was a collaboration between the Learning Directorate and LIT. The Pathfinder provided very helpful information and experience that gave the team enough confidence to start exploring the potential of a bigger programme.

Following learning from the Pathfinder, the Raising Attainment for All (RAfA) Programme was officially launched in June 2014. Taking learning from the SPSP and EYC, the design stage for RAfA placed greater focus on structure during planning, building improvement capability and on selecting priority areas. Demonstrating the maturity of Scottish improvement teams, RAfA was launched with minimal support from IHI. As with previous national improvement programmes, whilst many stakeholders were supportive, RAfA experienced tensions in some stakeholders between the new methodology and previous improvement and inspection efforts.

The vision of the RAfA programme was for Scotland to be the best place to learn, to have each child enjoy an education that encourages them to be the best they can and provides them with a full passport to future opportunity. This is to be achieved by supporting consistent improvement in attainment and achievement – raising attainment for all learners and closing the attainment gap for the more disadvantaged.

Strongly linked to the work on Early Years, several teachers attended the EYC learning sessions prior to the launch of RAfA. However, some resistance was felt

entering the education sector and attempting to align the new programme with existing streams of work. The challenge was collaborating with existing organisations such as the Association of Directors of Education, or Education Scotland, the national improvement body for education that combines inspection and improvement with a focus on best practice. Despite this initial friction, these bodies are now becoming more engaged.

The way RAfA was designed was around the different levels of achievement set out by the Curriculum for Excellence (CfE), and existing framework allowing the team to use the language of the educational sector. Evidence for interventions largely comes from the Education Endowment Fund Toolkit. The first work stream was essentially the same as work stream 4 in EYC, nicely demonstrating how the programmes complement and dovetail each other.

Aims for Raising Attainment for All Programme	
1	To ensure that 85% of children within each school cluster have successfully experienced and achieved CfE Second Level Literacy, Numeracy and Health and Wellbeing outcomes in preparation for Secondary School by 2016.
2	To ensure that 85% of children within each school cluster have successfully experienced and achieved CfE Third Level Literacy, Numeracy and Health and Wellbeing outcomes in preparation for Senior Phase by 2019.
3	To ensure that 95% of young people within each school cluster go on positive participation destinations on leaving school by 2018.
4	To provide the leadership for improvement, both nationally and locally, across the Raising Attainment for All Programme.

The RAfA Programme started with about 80 schools across 12 local authorities, within 6 months grew to 120 schools and after 2 years has reached 180 schools across 24 local authorities. With support from John Swinney, the Deputy First Minister of Scotland and the Cabinet Secretary for Education Skills, the remaining 9 local authorities are to hopefully join soon.

Front-line staff were given the choice of intervention they wanted to do, similarly to EYC, but broadly these do fit into three key areas – literacy, numeracy, and health and wellbeing. The first priority is now to start reaching results at scale by spreading those improvement projects that work well. The second priority is to create conditions for local improvement teams to become independent in their ability to create and drive forward improvement – a goal that is going to be achieved by capacity building with teams and within systems with the help from IHI over the next years or so.

The next phase for both EYC and RAfA work has begun recently with combining of the two programmes in order to create **The Children and Young People's Improvement Collaborative (CYPIC)**. Whilst work had been underway to deliver this integration for about a year, the first learning sessions as a joint programme took place in November 2016. The idea for this integration came both from the leadership, who had envisioned this long ago but acknowledged it could not have started as a joint programme, and from the front-line staff asking why these programmes are not

one when they work with the same children. The new CYPIC team also works closely with the affiliated maternity and paediatrics collaborative from SPSP and the Permanence and Care Excellence programme which focuses on looked after children.

5.4 Permanence And Care Excellence (PACE) Programme

Around 15,000 children in Scotland are looked after away from their home. Evidence published by the Scottish Children's Reporter Administration (SCRA) (Henderson et al., 2011) showed that the waiting time for children to go through the system until securing permanence, i.e. a legally secured alternative home to living within family, varies from 12.5 months to 10 years and 10 months. Delays in reaching decisions, obtaining a permanent placement or going through multiple placements has a negative impact on outcomes for the children.

The PACE Programme is unique in that it applies improvement methodologies to *identifying* and *addressing* a social policy issue in a very focused way and in a multiagency setting. It was launched in January 2014 with the aim to reduce drift and delay for looked after children in achieving permanence using a whole system approach. With children and young people at the heart of the programme, PACE provides support to local authorities and their partners in healthcare, Children's Hearings, SCRA and the Courts, to develop improvement projects that look across the whole of a child's journey to permanence and to identify delays, blockages and difficulties and test changes to address these.

It was agreed to start very small. Aberdeen City was the entry site, followed by Renfrewshire 3 months later. The momentum was building quickly once the programme started seeing success in the first two localities leading to a natural desire to scale up. Now PACE is delivered in 10 local authorities, with further 4 in various stages of joining and others doing preparatory work. In December 2015, the ministers announced that PACE would be made available to all 32 local authority areas in Scotland making the spread and scaling up the current focus of the programme.

While the early successes may not have been every time for every child, rather for some of the children some of the time, they are resulting in significant reductions in drift and delay in the child's journey to permanence and are being spread across the local area as well as nationally. Adaptation is essential as it is a multi-layered system influenced by multiple legislations and a variety of decision-makers at every step of the journey ranging from social work teams, through the children's hearing system, to the Sheriff. Additionally, every region has different processes in place, not allowing for the same prescription for the whole national system. What is very particular about PACE is not only engagement across the multiagency spectrum, it is the direct engagement with the judiciary, something achieved against all expectations.

The PACE Programme is delivered in a joint partnership between the Scottish Government and the Permanence and Care Team at the Centre for Excellence for Looked After Children in Scotland (CELSIS), an academic centre for resource and delivery based at the University of Strathclyde in Glasgow – bringing together expertise in permanence and in improvement programme delivery. The core

improvement advisory support initially came from LIT but there has been a lot of on-going capacity building within CELSIS as well as within the local authorities. There is a high level of engagement with the Government working alongside the people who are delivering their policy, starting with a 2-day training on arrival to a new area, through help with relationship building across the multiple agencies, to coaching support on a fortnightly basis. And it is extremely valued in the local areas.

This programme is an example of how Scotland adapted the Breakthrough Series Collaborative method to suit their needs and projects by taking into account that solid research evidence is not always readily available and waiting for implementation. The PACE programme took a democratic approach in collecting the evidence and opinions from all the involved partners in order to create and test their improvement interventions. Bringing in some strategic help from IHI in June 2016, PACE was tested for readiness for scale up.

Given the planned growth into all 32 local authorities, a new delivery model is currently being sought. Similarly to CYPIC, the PACE programme is aiming to build core teams leading on the improvement work within each of the new areas in order to respond to the increased demand for improvement support and coaching within a tight timeframe for delivery.

6. Building Capacity and Capability in Scotland

Initially, Scotland sourced its improvement expertise from the NHS Modernisation Agency as well as broadly from various UK programmes. Subsequently, some of those that became key in the Scottish improvement world undertook various extensive trainings - Derek Feeley was a Harkness Fellow at Kaiser Permanente and in 2005, Jason Leitch was the first Scot to undertake the Quality Improvement Fellowship at IHI. The latter was part of a scheme funded by the Health Foundation sending up to 4 fellows per year from the UK to IHI. These initial two were then followed by others who took part in the Improvement Advisor Programme at IHI.

Two improvement capacity and capability training schemes emerged in Scotland: 1) the NHS Improvement Advisor Professional Development Programme (started in 2009) and 2) the Scottish Patient Safety Fellowship, now called the Scottish Quality & Safety Fellowship (started in 2008). The latter focuses on safety and is targeted only at clinicians with the aim to build strong clinical engagement with improvement methodologies. It runs once a year and was developed in a way that allowed Scotland to quickly take charge of it with their own faculty. Currently on Cohort 9, there are already about 190 Fellows, of which 125 are in Scotland and others come from 6 other countries. The Improvement Advisor Professional Development Programme was initially a core product provided IHI and brought into Scotland with multiple waves of this training graduating over 120 Improvement Advisors. Taught by the IHI faculty from the start, the Scottish improvers became more and more involved in the teaching and coaching over time.

As Scotland became more confident, experienced and involved in these capacity and capability building programmes, it became appropriate to start internally developing and delivering the improvement advisor programme. There was an

emerging need for adaptation of the IHI course to include non-healthcare areas such as social work, police, or education. Therefore in 2014, NHS Education for Scotland (NES) and the Scottish Government jointly developed the *Scottish Improvement Leader (ScIL) Programme*. It was a lead level quality improvement course, described as "the world's first whole nation public sector improvement leaders programme" (In NES, 2015). The improvement content is similar to the IHI-run Improvement Advisor Programme but the model of delivery is perhaps more interactive and challenging for the participants. It is a 10-month long programme with three residential course workshops of three days and the participants work on a live large scale improvement project. Participants are required to submit monthly reports, and mentors as well as the programme and cohort leads provide them with feedback and support them throughout with the use of regular WebEx sessions and project surgeries. A higher level of expectation has been introduced in this programme - the programme leads expect progress in return for their commitment and if the participants do not apply their learning into their projects, they may not be able to finish the programme.

The current model for the ScIL programme is based on funding from HIS for 2 cohorts and the Scottish Government for one cohort a year. This results in two thirds of ScILs from health and social care and one third from the wider public sector each year. The faculty is sourced from across existing Improvement Advisors working out in NHS boards, the LIT team and beyond. However, the demand is growing and a scale up of this programme, and others, is on the horizon.

LIT plays a crucial role in capacity and capability building within Scottish public services. Since the establishment of the team, they have been developing various training programmes. LIT provide a 2-day Quality Improvement Practitioner Training Programme to groups of people, 'in-institution' training as and when required and various introductory sessions. The 2-day practitioner training has to date completed 23 cohorts. In 2013, the team completed a 90-day study on Leadership for Improvement which introduced an introductory programme for leaders and directors in SG to learn how to lead on improvement in a policy context. It is hoped that this course would be brought back in the near future.

Other sources for capacity and capability training include the IHI Open School and the Scottish Improvement Skills course run by NES as a three-day workshop with follow-up conference calls and a one-day follow-up workshop. It is aimed at NHSScotland staff and has been completed by over 400 staff members.

Additionally, individual organisations have since begun to launch their own centres or programmes focusing on improvement capacity and capability building. In June 2015, Shona Robison, Cabinet Secretary for Health, Wellbeing and Sport, launched the Scottish Improvement Science Collaborating Centre (SISCC) based in the School of Nursing & Health Sciences at the University of Dundee. It brings together academic researchers, health and social care staff, policy makers, educators, and the third sector to strengthen the evidence base for improvement science. The Scottish Ambulance Service is planning to run a programme that will embed improvement into the workforce development plan accompanied by divisional micro system learning.

7. Lessons learned and discussion

As can be seen across the numerous programmes and initiatives, Scotland has followed a nationwide approach to quality improvement, learning every step of the way. The existing system was perfectly designed to get the results it was getting and in order to change that, the system needed to be changed. Starting with Scottish Patient Safety Programme, the country learned about implementing strong evidence-based interventions to reduce avoidable harm in healthcare settings. Taking that knowledge forward, there was a move to spreading into other areas of health and public services that needed to build their own evidence base first. With this, a set of more person-centred approaches emerged – co-design of changes and interventions with service users and front-line staff, increased empowerment of front-line staff to drive improvement forward, or the use of patient and service user stories creating powerful motivational messages.

It has been a challenging journey but a successful one. Based on the interviews conducted with the key players along this journey, we present here a summary of these successes and challenges. This is not to say that replicating Scotland's journey elsewhere is possible; it takes time, resource and key leaders to build, but these factors may point to some of the critical issues for consideration.

7.1 Summary of key success factors and challenges

	Successful	**Challenging**
Methodology	Confidence in a proven method which delivers measurable results. The method and behaviours resonated with people, fitted with their values - non-punitive, 'All teach, all learn' approach, empowerment gives energy and motivation. Simple to learn and teach, people do not need to become experts before starting to use the method. Consistency of method across programmes. Flexibility – local flexibility, also applied to programme design itself.	Initial difficulties with competing methodologies - programmes worked in silos due to a lack of understanding and trust in one another. Balancing leadership mandate with allowing people the freedom to design their own interventions. Ensuring good understanding of methodology before people apply it.
Political buy-in & leadership	Power of continuous ministerial and governmental support giving prominence and priority to QI work. National direction and guidance with consistency of purpose.	Political will can push programme teams to start before they may be ready and to work on more programmes than they have the capacity to be working on.
Senior leadership	Real commitment to quality improvement across SG leaders as demonstrated in the Quality Strategy. Key leaders remaining constant.	Government approach to moving expertise around to work on new projects may be difficult for the projects left behind and a lack of consistent leadership.
Leadership at board level	Engagement of chief executives, chief nurses, chief medical officers at learning sessions. Mixture of subject matter experts and improvement experts at board level.	Challenging to keep chief executives and some directors engaged. Need to understand better how to engage middle management. Attempts to build board level QI skills – 'Boards on Board' initiative. Competing priorities for focus of activity (e.g. targets).
Front-line staff	Strong will and motivation to work towards aims –visionary aims of working together for the greater good by making care safer or improving the lives of children resonated with everyone. Empowerment to create and drive forward improvement owned locally while knowing it is aligned to the big picture (EYC, RAfA, PACE).	Need for understanding why the reason for the programmes, and what the impact of the teams' work is, or disengagement may result. Convincing subject matter experts that there is a better way of putting evidence into practice – or even that traditional methods don't work. A lack of skill or will or capacity to reliably record the iterative steps of testing changes which are needed to articulate key interventions for national spread.

Capacity building	Various capacity and capability building programmes equipping people with the skills they need. SPS Fellowship helped with clinical engagement.	Pace of producing enough improvement advisors and leaders required to provide access to support to all who need it. Fast growth of programmes places strains on resources. Underutilised resource of trained Improvement Advisors – not all in roles where their skills, knowledge and talents can be harnessed.
Will building	Relationship building with all stakeholders: up-front engagement with all organisations touched by the work but also continuous support provided. Empowerment of front-life staff leads to high engagement.	Sensitivity to the dynamics of other organisations and respect to existing work at the introduction of a new programme. Managing will and enthusiasm the success creates - balancing the intentionality to not waste will & controlling the growth into new areas
IHI	Partnership with IHI fundamental to success.	Acceptance of involvement of a US-based company Supporting the process to transition well from a dependency relationship through to co-design and co-delivery and ultimately through to expert advice when needed.
Data & measurement	Positivity around using data and measures differently than for performance management and judgement. Importance of data to demonstrate the existence of a problem, to create will for change, and to demonstrate improvement. Emergence of stories to accompany quantitative data charts – helps explain why certain things happened and creates powerful motivational messages.	Trust that data will be used only for improvement, not for judgement and creating league tables. Lack of data or rigor of data reporting, particularly beyond acute care settings. In non-acute settings, data skills sometimes lacking. Lack of standardised platform for collecting data, automatised extraction and reporting, reflecting and reporting on it, for extrapolation of a national message. Duplication of data recording and reporting due to lack of an IT infrastructure. This was the case even with the IHI extranet as the boards were inputting the data into this separately to the local systems. Completeness of data coverage (e.g. 11 of 15 hospitals reliably report)
Multiple stakeholder groups	Opportunities for co-production of improvement and in some cases co-design of interventions.	Bringing people together in a multiagency context. Different understandings of improvement and conflicting language with the same words often used to mean different things
Achieving results	Public celebration of achievements locally, nationally, and internationally.	Managing expectations across all levels of leadership. Success can lead to over-ambition and confusion over

		priorities.
Geography	Small scale country with short and connected infrastructure – the system is an enabler rather than barrier.	Variety of rural and urban settings across the socioeconomic spectrum.
Time	Taking time to prepare for the work, and to build will, infrastructure, and capacity – yet balancing that with not waiting for perfect conditions.	Recognising it takes time to prepare, plan, and to get the results, especially with community change where it may take a generation to see the change.
Marketing	Branding, belonging to a big national programme that has impact is very powerful for building will across all levels. Publicity is worthwhile and very powerful.	

Reflecting the improvement methodology itself, the Scottish improvement journey is marked with learning and sharing of the learning. All the points highlighted above come from the experience of the those who led on the various high-profile improvement programmes across Scotland. The collaboration across staff groups, agencies, and sectors is a remarkable outcome of the journey. A final message of recommendation from these experts would be to be clear about the ambition, to be ambitious but real about expectations, to start before being ready and to stick to it. Spreading of this success does not work by simply transplanting a solution, the usual steps of building will, acknowledging the problem, testing change, and implementing reliable interventions need to be repeated every time.

8. Where will the future take Scotland?

Scotland has built a momentum across the country. The next steps will revolve around integration of local and national agendas, programmes and different strands of the work in order to offer more opportunities for learning and sharing of the learning, and improving relationships and multiagency work. This is already evident in the system-wide Health & Social Care Integration focusing on community asset building but also in the integration of the work on early years and education into a joint collaborative.

Bringing together the different worlds of health and social care, Healthcare Improvement Scotland's ihub is the new improvement resource and delivery agency for this sector. The ihub supports a mixture of over 14 portfolios, including the Scottish Patient Safety Programme, that support improvements in care delivery and the development of infrastructures and cultures which enable improvement work. These system enablers include the Tailored & Responsive Improvement Support Team which provides flexible support to help NHS boards, Health and Social Care Partnerships, third sector, independent care sector and housing organisations address local priority issues; a range of Improvement Associates – independent contractors with improvement skills and expertise; and an Improvement Fund launched in September 2016 in order to provide grants for organisations wishing to develop initiatives to improve health and social care services.

Considering the Juran Trilogy of Quality Planning, Quality Improvement, and Quality Control, there is now a growing stream of work in Quality Planning alongside the on-going Quality Improvement. With a relentless focus on the system perspective and breaking traditional silos, Scotland is aiming at targeting the root cause of many of the problems. To achieve that, other methodologies are resurfacing and particularly the design methodology is being increasingly combined with the improvement methodology.

There is always room for more improvement. The work needs to continue to expand and become embedded across health and social care; simultaneously the spread across other areas of government business should follow a similar pattern of growth. New ways of supporting this growing body of work are being explored to respond to the ever-increasing demand for improvement skills. Additionally, the 2016 Manifesto stated that the potential for of a new improvement institute would be explored; a 90-

day Innovation Cycle has been completed to explore the options, and at the time of writing is undergoing discussions with ministers.

9. Conclusion

The Scottish improvement story shows a long journey of commitment to quality improvement. It took years to arrive at the point where Scotland finds itself now. This commitment did not start 9 years ago with Patient Safety; however, the SPSP programme played a key part in igniting a national movement. All emerging national quality improvement programmes are building on the learning of the forerunners who prepared a fertile ground. The way Scotland thinks about improvement has now changed.

Consistent improvements in outcomes are being achieved across the range of programmes introduced in Scotland and a deserved sense of pride is felt amongst those involved. The SPSP is recording significant reductions in avoidable harm across Scottish healthcare. Other countries are learning from Scotland when designing and implementing their own safety programmes. Scotland has led the way in demonstrating the transferability and applicability of the improvement methodology beyond health and into the wider public services, creating unique collaborations among very different sectors and areas of work. Over time, IHI has become a critical friend to Scottish public services, adding value from their expertise rather than doing the work for them. Niñon Lewis, Executive Director at IHI, summarises the journey: “Scotland has really paved the way in the safety space and now in terms of community wide improvement, has really opened doors to show what is possible when you use QI as your execution method”.

10. Appendices – Scottish Patient Safety Programme Data

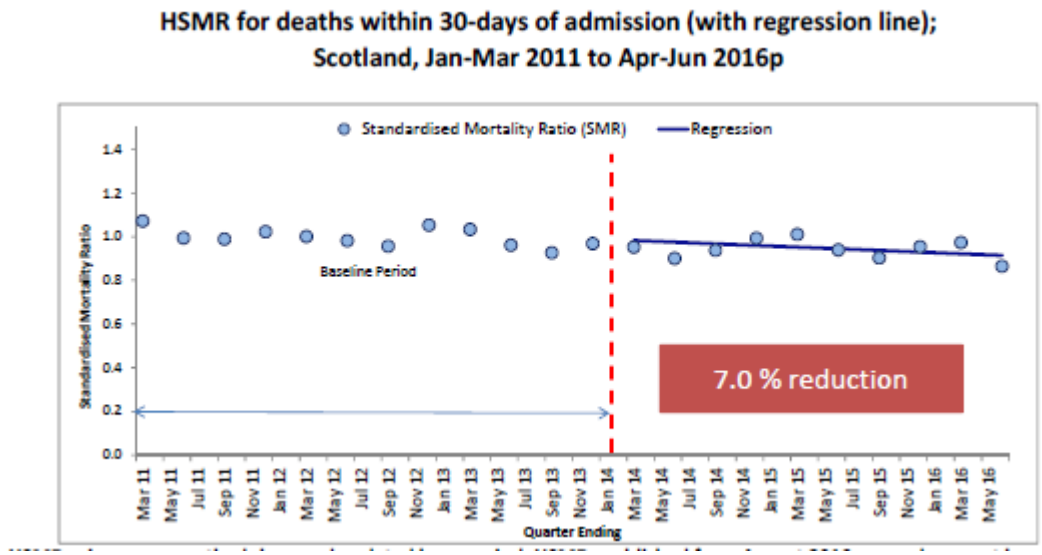


Figure 1: HSMR for deaths within 30 days of admission, January - March 2011 to April - June 2016, Scotland.

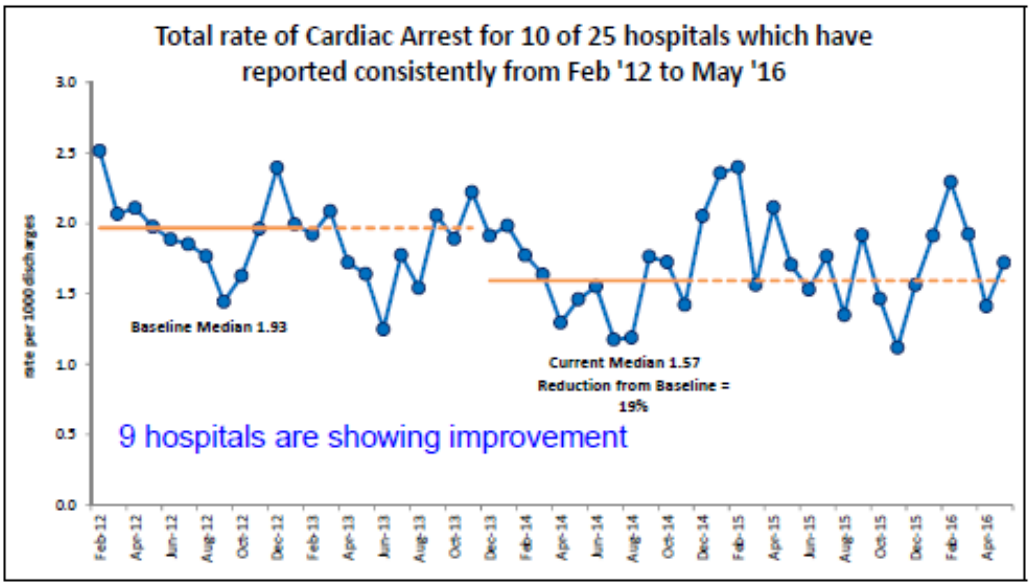


Figure 2: Total rate of cardiac arrest for 10 of 25 hospitals which have reported consistently from February 2012 to May 2016, Scotland.

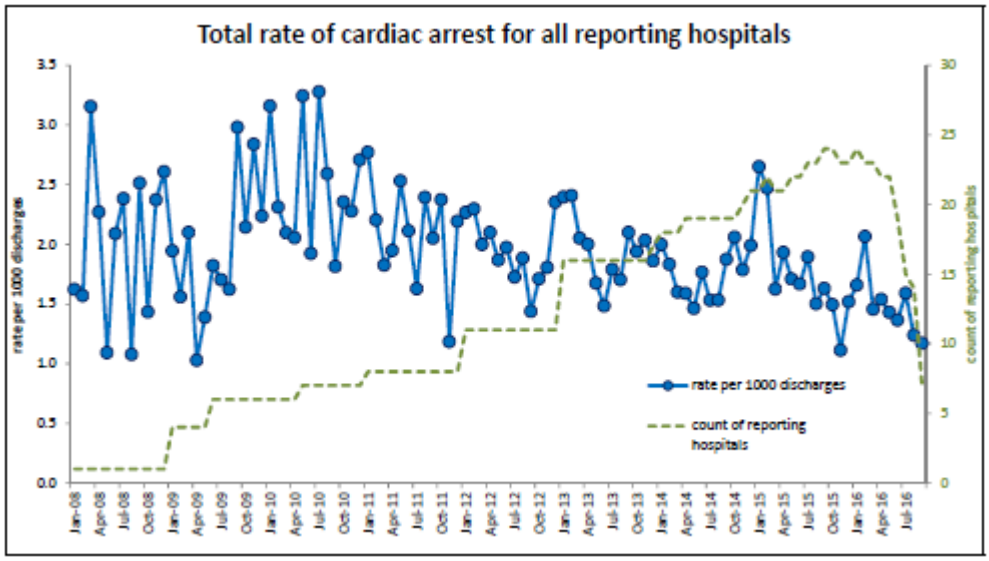


Figure 3: Total rate of cardiac arrest for all reporting hospitals, January 2008 to July 2016, Scotland.

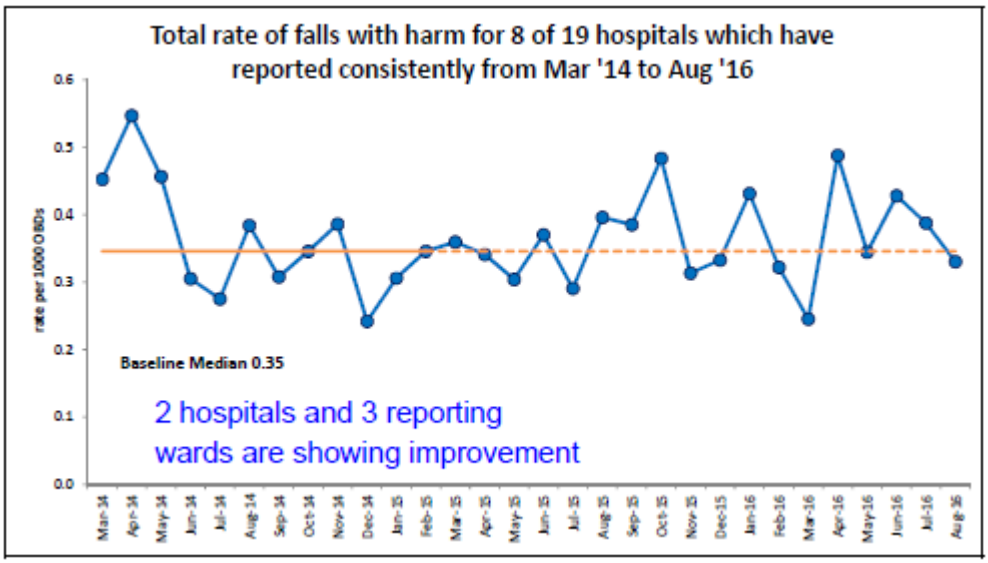


Figure 4: Total rate of falls with harm for 8 of 19 hospitals which have reported consistently from March 2014 to August 2016, Scotland.

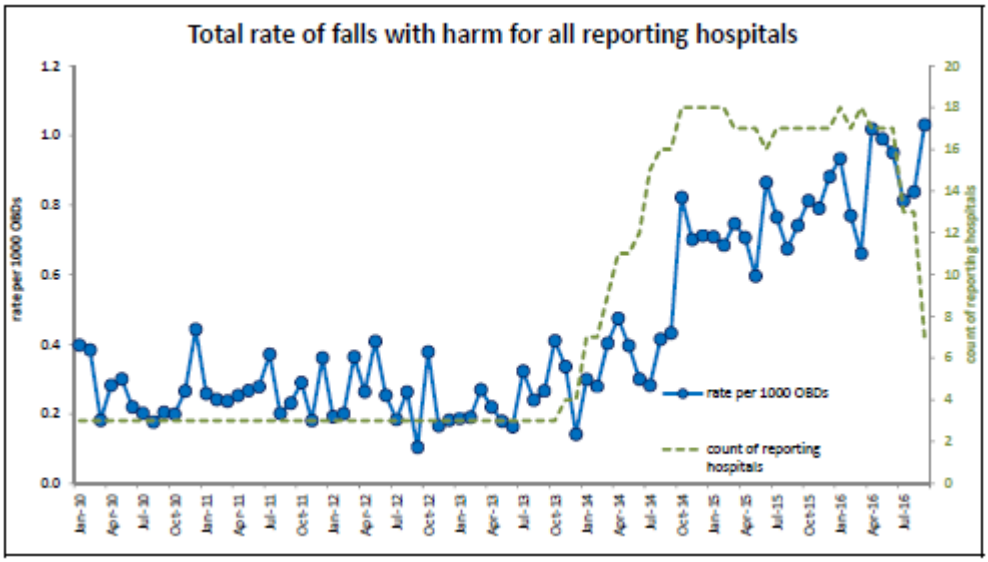


Figure 5: Total rate of falls with harm for all reporting hospitals, January 2010 – July 2016, Scotland.

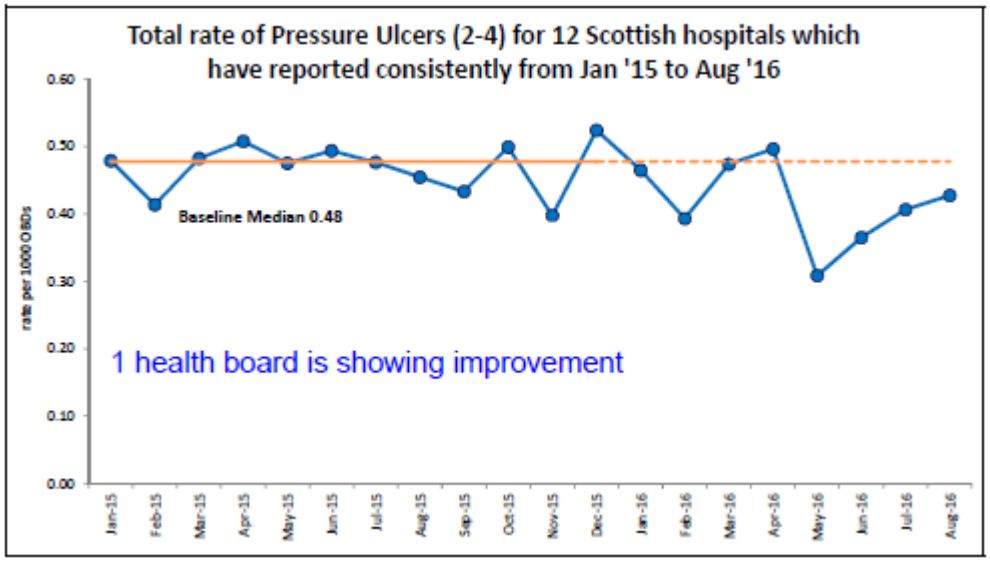


Figure 6: Total rate of pressure ulcers (2-4) for 12 consistently reporting hospitals from January 2015 – August 2016, Scotland.

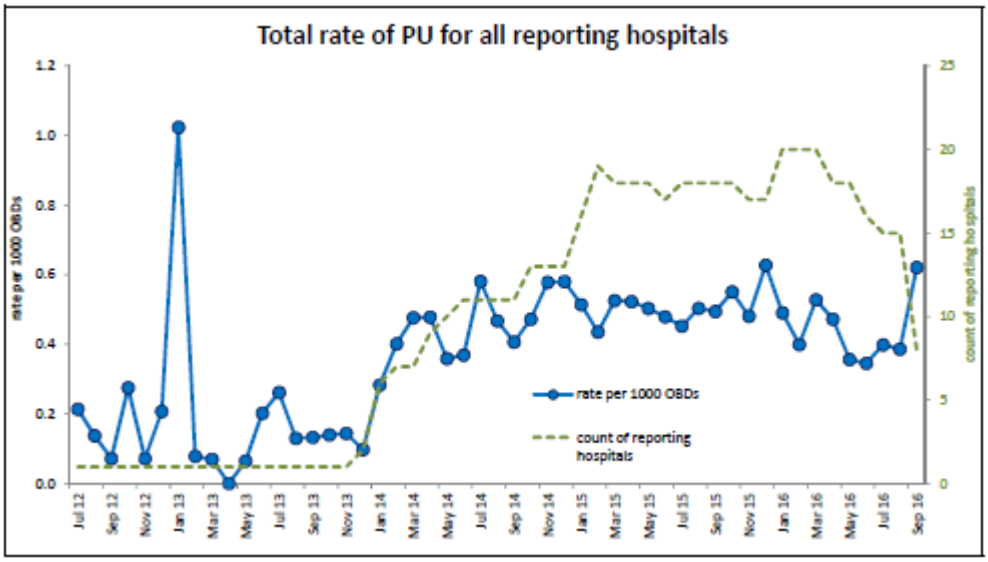


Figure 7: Total rate of pressure ulcers for all reporting hospitals, July 2012 – September 2016, Scotland.

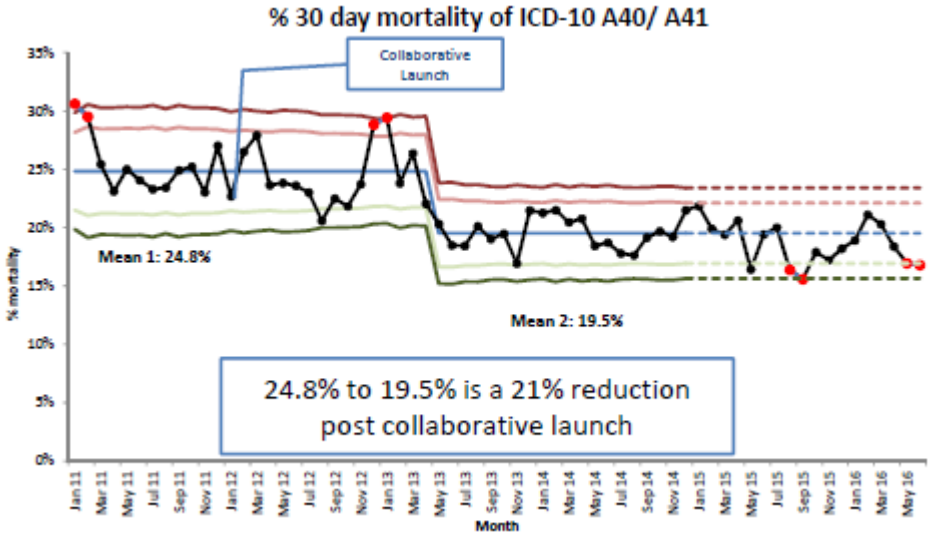


Figure 8: % 30 day mortality of ICD-10 A40/A41 January 2011 – May 2016, Scotland.

In understanding this relative mortality reduction of 21% it is important to note that, although A40 & 41 are the most frequently used codes to identify a patient with sepsis for coding purposes, a wide number of other codes are also used in this scenario.

The use of codes A 40 & 41 in clinical practice has significantly increased/improved over the last 5 years. In effect, the numerator (number of deaths) has remained largely static while the denominator (number of patients coded for sepsis) has increased by 38%.

It is not currently possible to

- *quantify the % of sepsis patients currently covered by these codes*

• *state the acuity of patients included in this increased denominator – it is likely to include a wide range of clinical presentations from mild to severely ill which will impact on likelihood of survival*

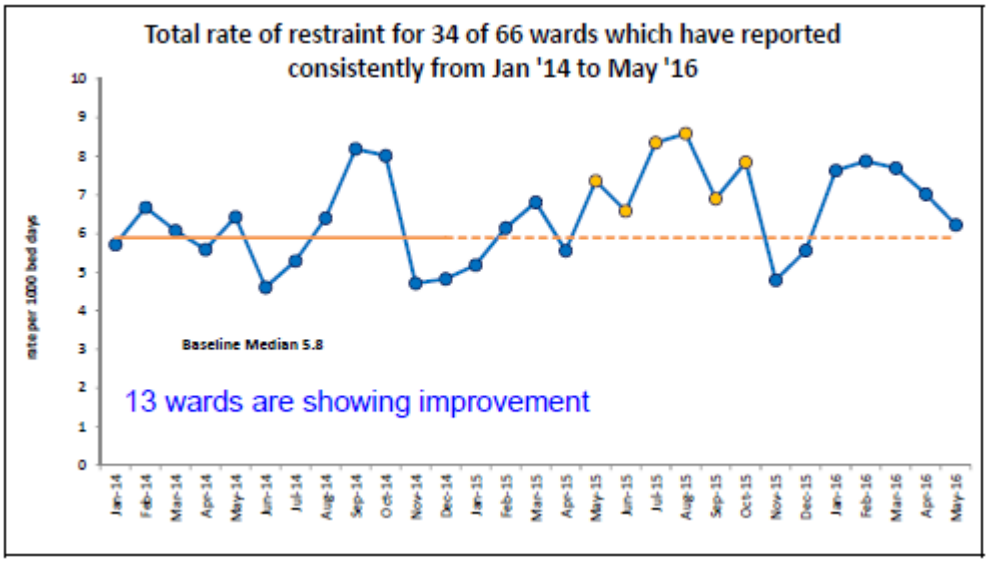


Figure 9: Total rate of restraint for 34 of 66 mental health wards consistently reporting from January 2014 to May 2016

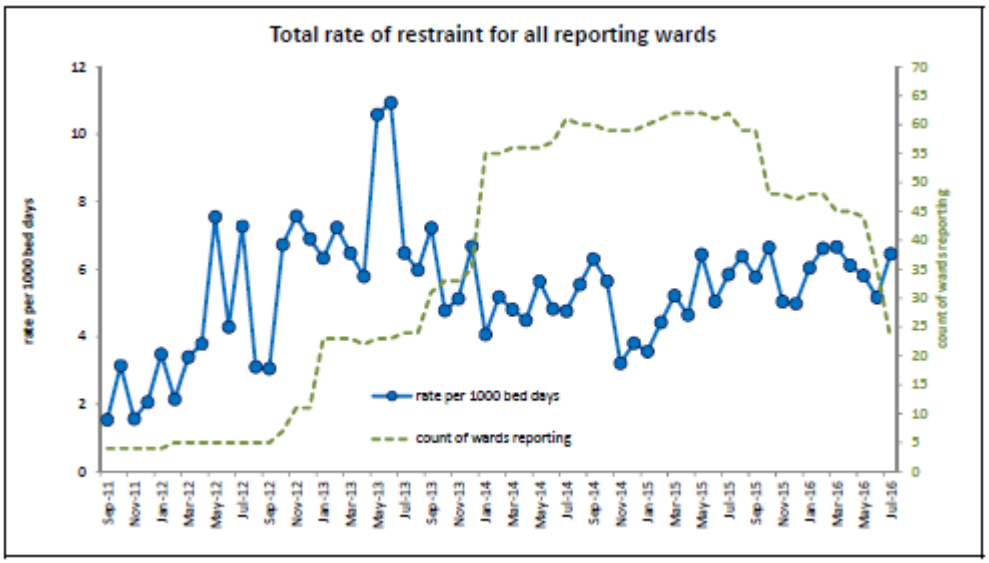


Figure 10: Total rate of restraint for all reporting mental health wards, September 2011 to July 2016, Scotland.

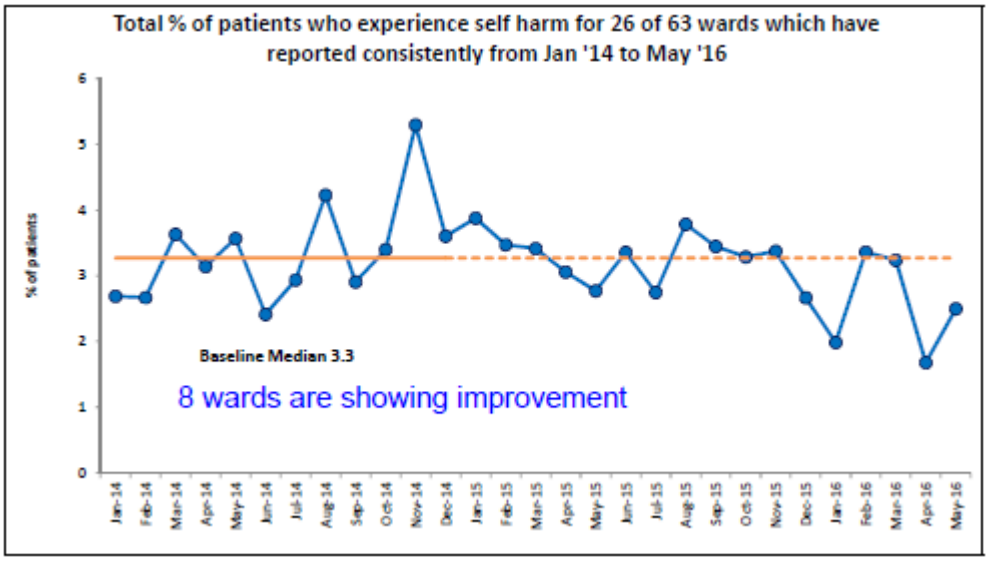


Figure 11: Total % of patients who experience self harm for 26 of 63 mental health wards reporting consistently from January 2014 to May 2016, Scotland.

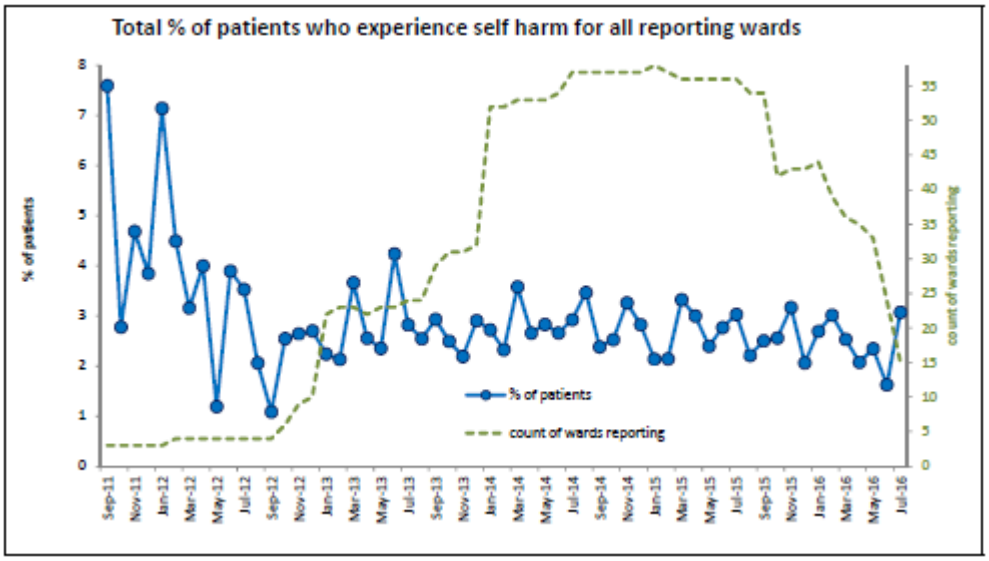


Figure 12: Total % of patients who experience self harm for all reporting mental health wards, Scotland

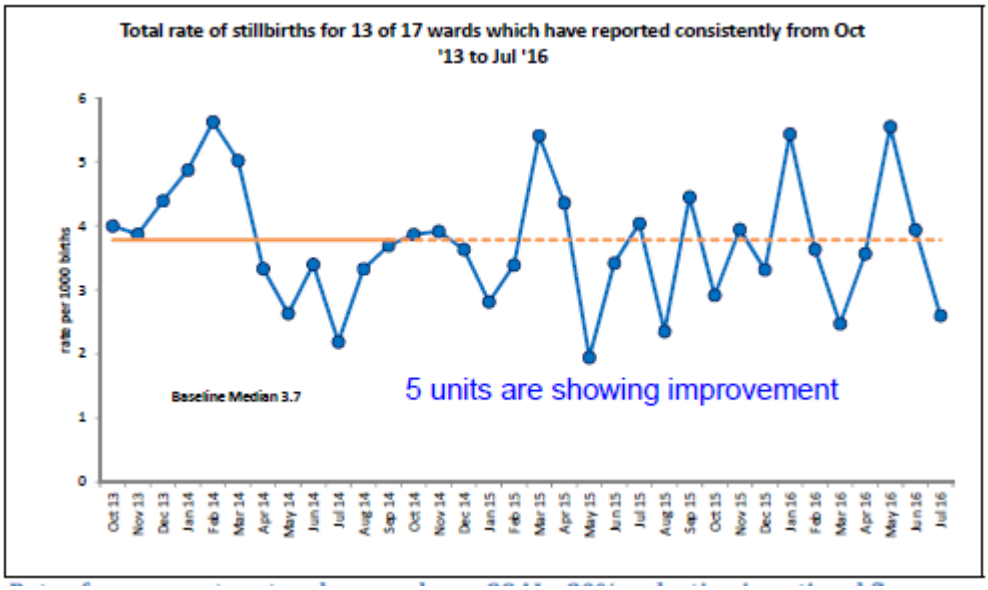


Figure 13: Total rate of stillbirths for 13 of 17 wards reporting consistently from October 2013 to July 2016, Scotland.

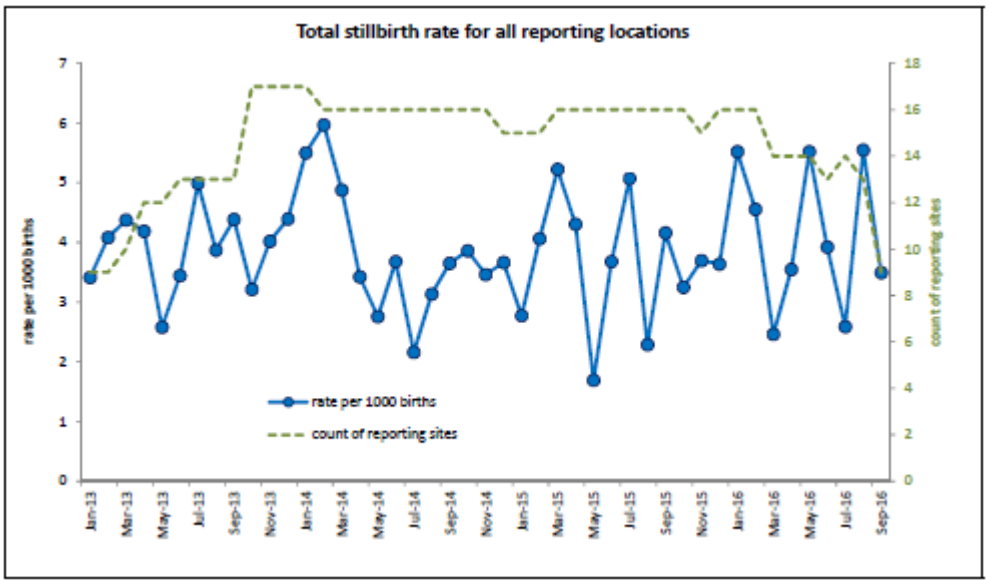


Figure 14: Total rate of stillbirths for all reporting locations, Scotland

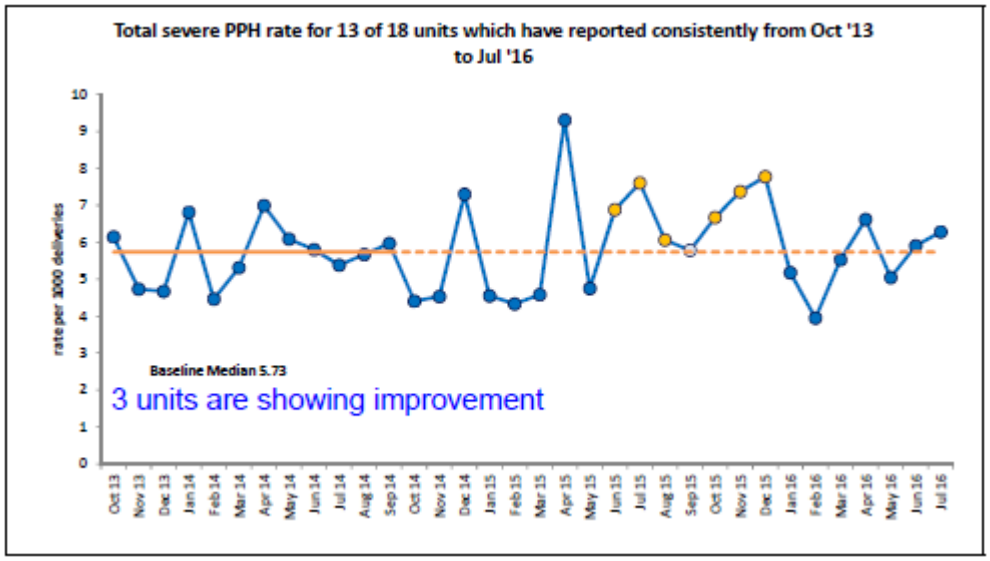


Figure 15: Total severe post-partum haemorrhage for 13 of 18 units which have reported consistently from October 2013 to July 2016, Scotland.

11. Reference list

Allen, G. (2011). *Early intervention: The next steps*. An independent report to Her Majesty's Government. Cabinet Office: London. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/284086/early-intervention-next-steps2.pdf [Accessed 11/01/2017]

Anda R.F., Felitti V.J., Walker J., Whitfield C.L., Bremner J.D., Perry B.D., Dube S.R., Giles W.H. (2006). The enduring effects of abuse and related adverse experiences in childhood: A convergence of evidence from neurobiology and epidemiology. *European Archives of Psychiatry and Clinical Neuroscience,* 256(3), 174–86.

Barnett, K., Mercer, S.W., Norbury, M., Watt, G., Wyke S. and Guthrie, B. (2012). Epidemiology of multimorbidity and implications for health care, research, and medical education: a cross-sectional study. *The Lancet*, 380(9836), 37–43.

Boyne, G.A. (2003). Sources of public service improvements: A critical review and research agenda. *Journal of Public Administration Research and Theory,* 13(3), 367-394.

Christie Commission (2011). *Commission on the future delivery of public services*. APS Group: Scotland. Available at: http://www.gov.scot/Resource/Doc/352649/0118638.pdf [Accessed 09/12/2016]

Committee on Quality Health Care in America, Institute of Medicine. (2001). Crossing the quality chasm : a new health system for the 21st century. Washington, D.C. :National Academy Press.

De Vries, E.N., Ramrattan, M.A., Smorenburg, S.M., Gouma, D.J., and Boermeester, M.A. (2008). The incidence and nature of in-hospital adverse events: a systematic review. *Quality and Safety in Healthcare*, 17(3), 216-223.

Haraden, C., and Leitch, J. (2011). Scotland's successful national approach to improving patient safety in acute care. *Health Affairs*, 30(4), 755-763.

Health Foundation (2011). *Learning report: Safer Patients Initiative*. Health Foundation: London. Available at: http://www.health.org.uk/sites/health/files/SaferPatientsInitiativeLearningReport.pdf [Accessed 22/11/2016]

Henderson, G., Hanson, L., and Whitehead, I. (2011). *Care and Permanence Planning for Looked After Children in Scotland*. Scottish Children's Reporter Administration Research Report. SCRA: Stirling. Available at: http://www.scra.gov.uk/resources_articles_category/research/ [Accessed 09/01/2017]

HIS (2016a). *Acute Adult and Primary Care Programmes: 90-Day Process Report*. Healthcare Improvement Scotland: Edinburgh. June. Available at:

http://www.scottishpatientsafetyprogramme.scot.nhs.uk/Media/Docs/20160613%20SPSP90DayProcessFinalReport%20v%203%200.pdf [Accessed 12/01/2017]

HIS (2016b). *SPSP Acute Adult: End of phase report – August 2016*. Healthcare Improvement Scotland: Edinburgh. August. Available at: http://www.scottishpatientsafetyprogramme.scot.nhs.uk/Media/Docs/Acute%20Adult%20Care/201609%20SPSP%20AA%20EOPR%201.1.pdf [Accessed 12/01/2017]

HIS (2016c). *SPSP Maternity and Children: End of phase report – August 2016*. Healthcare Improvement Scotland: Edinburgh. August. Available at: http://www.scottishpatientsafetyprogramme.scot.nhs.uk/Media/Docs/MCQIC/SPSP%20MC%20EOPR.PDF [Accessed 12/01/2017]

HIS (2016d). *SPSP Mental Health: End of phase report – November 2016*. Healthcare Improvement Scotland: Edinburgh. November. Available at: http://www.scottishpatientsafetyprogramme.scot.nhs.uk/Media/Docs/Mental%20Health/End%20of%20Phase%20Report.pdf [Accessed 12/01/2017]

HIS (2016e). *SPSP Primary Care: End of phase report – August 2016*. Healthcare Improvement Scotland: Edinburgh. August. Available at: http://www.scottishpatientsafetyprogramme.scot.nhs.uk/Media/Docs/Primary%20Care/SPSP%20PC%20EOPR.PDF [Accessed 12/01/2017]

IHI (2003). *The Breakthrough Series: IHI's Collaborative Model for Achieving Breakthrough Improvement.* IHI Innovation Series white paper. Institute for Healthcare Improvement: Boston, MA. Available at: http://www.ihi.org/resources/Pages/IHIWhitePapers/TheBreakthroughSeriesIHIsCollaborativeModelforAchievingBreakthroughImprovement.aspx [Accessed 04/01/2017]

Information Services Division (2012) *Scottish Audit of Surgical Mortality*. Available at: http://www.isdscotland.org/Health-Topics/Scottish-Healthcare-Audits/Scottish-Audit-of-Surgical-Mortality/ [Accessed 04/12/2017]

Information Services Division (2017). NHSScotland Workforce Information: Quarterly Update of Staff in Post and Vacancies at 31 December 2016. *A National Statistics Publication for Scotland*, 7th March. Available at: https://www.isdscotland.org/Health-Topics/Workforce/Publications/2017-03-07/2017-03-07-Workforce-Report.pdf [Accessed 17/04/2017]

National Records of Scotland (2015). Projected Population of Scotland (2014-based): National population projections by sex and age, with UK comparisons. *National Statistics Publication for Scotland*, 29 October. Available at: http://www.nrscotland.gov.uk/files//statistics/population-projections/2014-based/pp14-corrected.pdf [Accessed 03/11/2016]

National Records of Scotland (2015). Scotland's Population – Key Statistics. Available at: https://www.nrscotland.gov.uk/statistics-and-data/statistics/stats-at-a-glance/scotlands-population-key-statistics [Accessed 03/11/2017]

NES (2015). New ScILs new skills. *NHS Education for Scotland Newsroom*. Available at: http://www.nes.scot.nhs.uk/newsroom/features-and-articles/new-scils-new-skills.aspx [Accessed 13/12/2016]

Office for National Statistics (2016). *Alcohol Related Deaths in the United Kingdom: Registered in 2014.* Statistical bulleting of the Office for National Statistics. Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/causesofdeath/bulletins/alcoholrelateddeathsintheunitedkingdom/registeredin2014 [Accessed 06/01/2017]

Rowe, A. and Chapman, C. (2015). Perspectives on improvement and effectiveness: Key definitions and concepts. *What Works Scotland Literature Review Series*. Available at: http://whatworksscotland.ac.uk/wp-content/uploads/2015/11/Perspectives-on-Improvement.pdf [Accessed 26/10/2016]

SASM (no date). *The Scottish Audit of Surgical Mortality (SASM) Homepage*. Available at: http://www.sasm.org.uk/index.htm [Accessed 06/12/2016]

Scottish Executive (2006). *Planned Care Improvement Programme.* Available at: http://www.gov.scot/Resource/Doc/149761/0039877.pdf [Accessed 09/12/2016]

SIGN (2016). *The Scottish Intercollegiate Guidelines Network (SIGN) Homepage*. Available at: http://sign.ac.uk/index.html [Accessed 06/12/2016]

Teasdale, G. and Jennett, B. (1974). Assessment of coma and impaired consciousness: A practical scale. *Lancet,* 2, 81-84.

The Scottish Government (2007). *Better Health, Better Care: Action Plan.* The Scottish Government: Edinburgh. Available at: http://www.gov.scot/Resource/Doc/206458/0054871.pdf [Accessed 22/11/2016]

The Scottish Government (2010). *The Healthcare Quality Strategy for NHSScotland*. The Scottish Government: Edinburgh. Available at: http://www.gov.scot/Resource/Doc/311667/0098354.pdf [Accessed 11/01/2017]

The Scottish Government (2013). *The 3-Step Improvement Framework for Scotland's Public Services*. The Scottish Government: Edinburgh. Available at: http://www.gov.scot/Resource/0042/00426552.pdf [Accessed 05/01/2017]

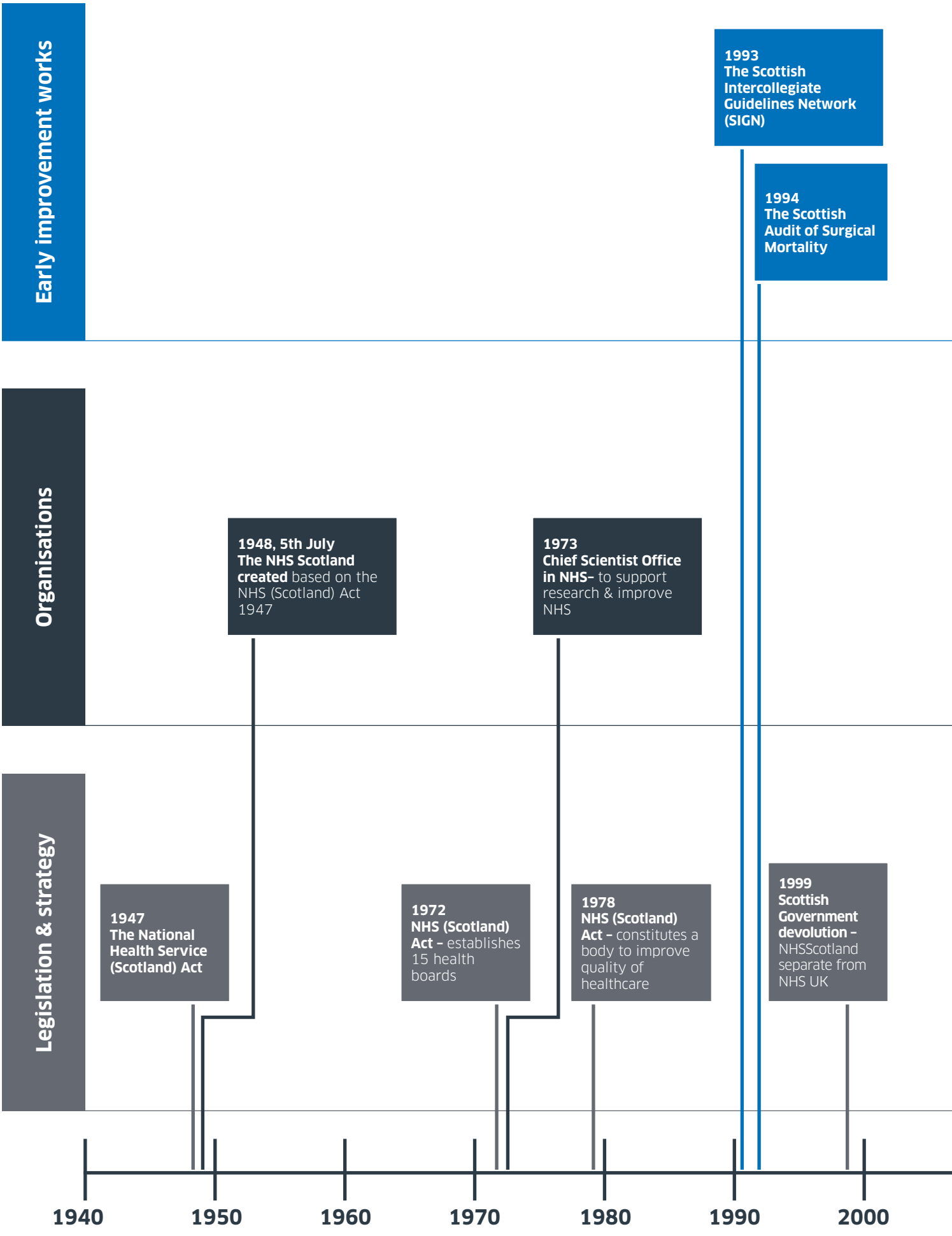
The Scottish Government (2016). Quality Improvement and Measurement. What Non-Executive Directors need to know. January 2016. Available at: http://www.gov.scot/Resource/0049/00492311.pdf [Accessed 12/04/2017]

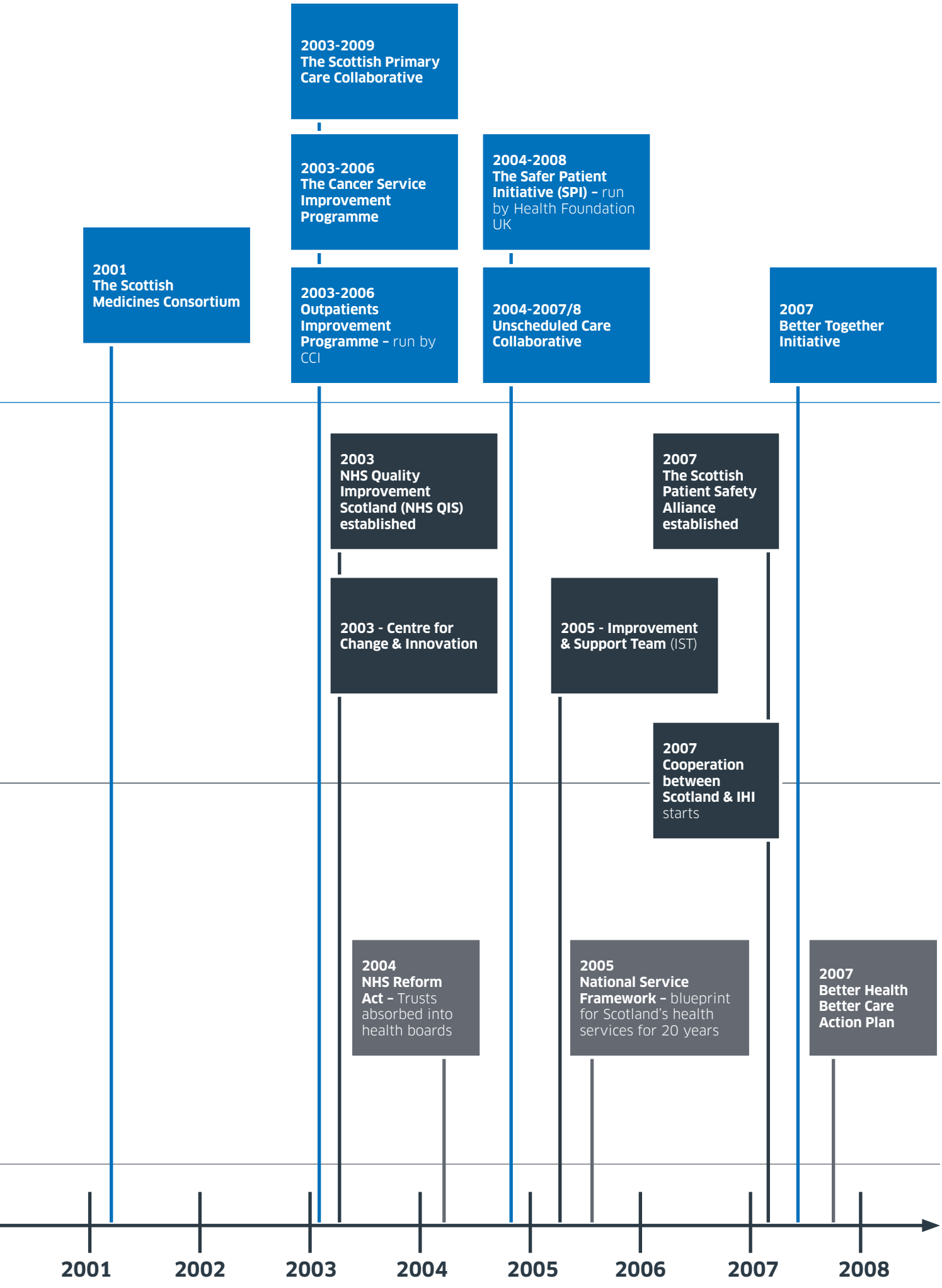
The Scottish Government (2016). *Health & social care integration due to go live*. The Scottish Government News. 14th March 2016. Available at: http://news.gov.scot/news/health-social-care-integration-due-to-go-live [Accessed 12/01/2017]

Weingart N Saul, Wilson Ross McL, Gibberd Robert W, Harrison Bernadette. (2000) Epidemiology of medical error BMJ; 320 :774

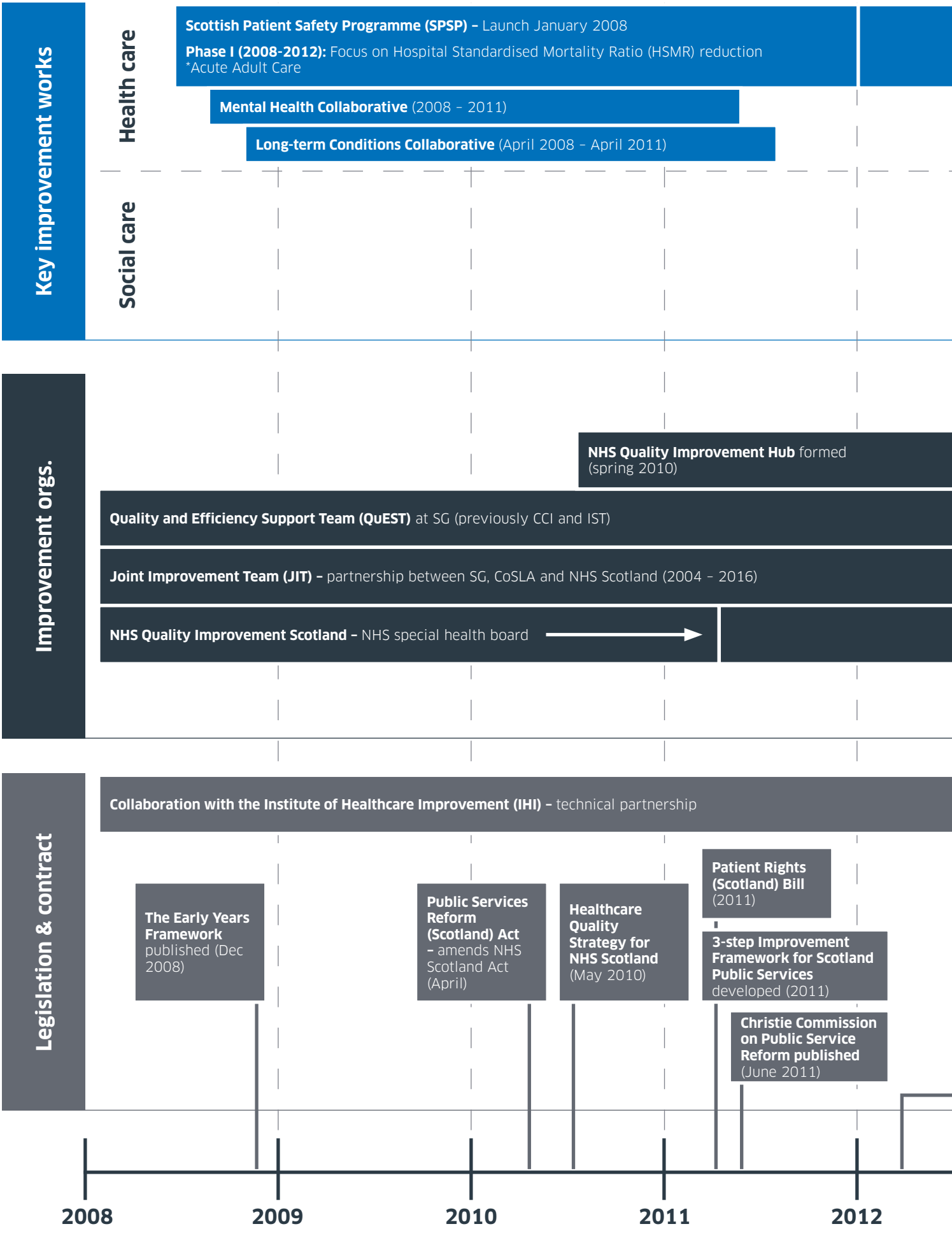
Wikipedia, Scotland. Available at: https://en.wikipedia.org/wiki/Scotland [Accessed 12/04/2017]

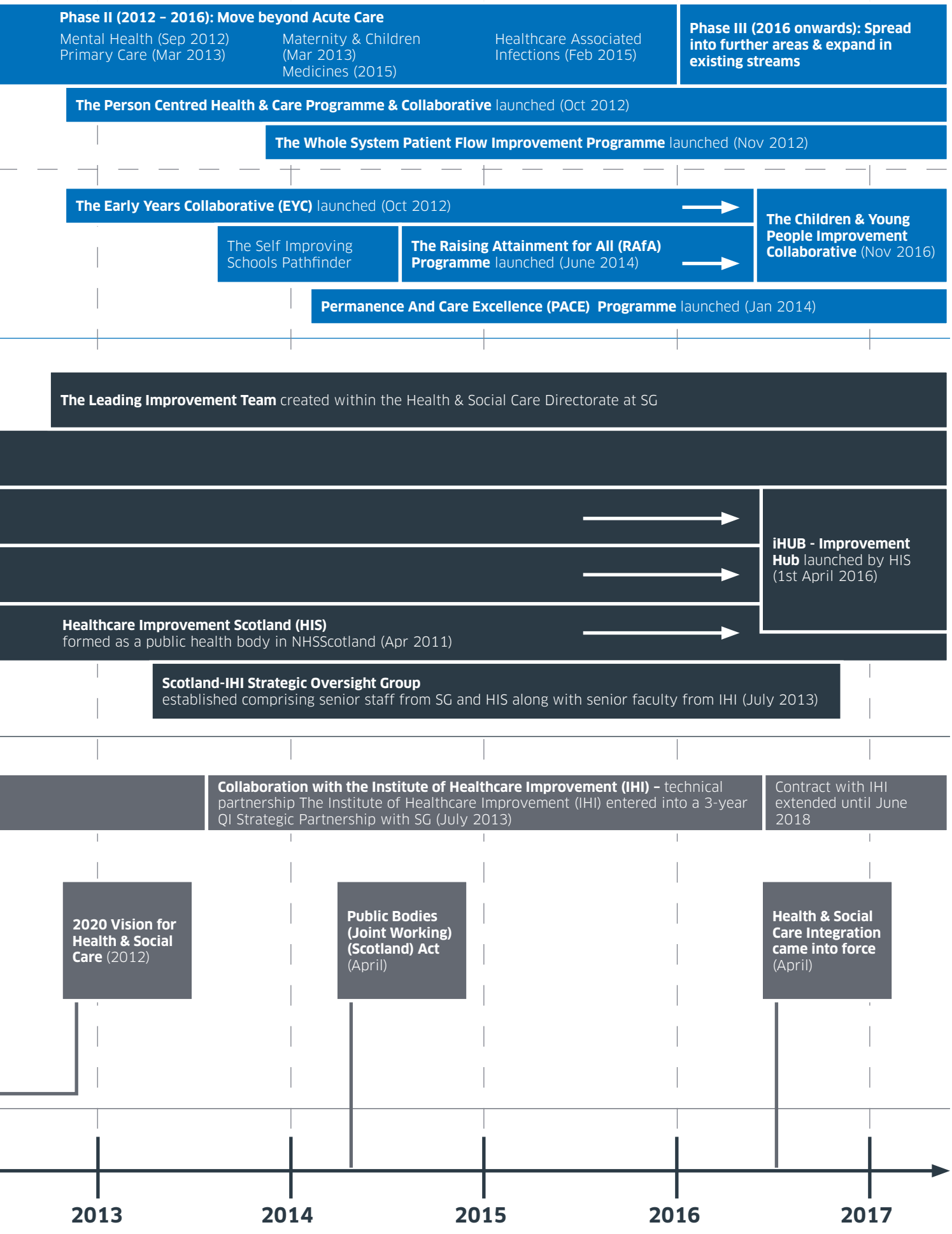
Scottish Improvement Journey pre-2008




2003-2009
The Scottish Primary Care Collaborative
2003-2006
The Cancer Service Improvement Programme
2004-2008
The Safer Patient Initiative (SPI) – run by Health Foundation UK
2001
The Scottish Medicines Consortium
2003-2006
Outpatients Improvement Programme – run by CCI
2004-2007/8
Unscheduled Care Collaborative
2007
Better Together Initiative
2003
NHS Quality Improvement Scotland (NHS QIS) established
2007
The Scottish Patient Safety Alliance established
2003 - Centre for Change & Innovation
2005 - Improvement & Support Team (IST)
2007
Cooperation between Scotland & IHI starts
2004
NHS Reform Act – Trusts absorbed into health boards
2005
National Service Framework – blueprint for Scotland's health services for 20 years
2007
Better Health Better Care Action Plan
2001
2002
2003
2004
2005
2006
2007
2008

Scottish Improvement Journey post-2008




Phase II (2012 – 2016): Move beyond Acute Care
Mental Health (Sep 2012)
Primary Care (Mar 2013)
Maternity & Children (Mar 2013)
Medicines (2015)
Healthcare Associated Infections (Feb 2015)
Phase III (2016 onwards): Spread into further areas & expand in existing streams
The Person Centred Health & Care Programme & Collaborative launched (Oct 2012)
The Whole System Patient Flow Improvement Programme launched (Nov 2012)
The Early Years Collaborative (EYC) launched (Oct 2012)
The Self Improving Schools Pathfinder
The Raising Attainment for All (RAfA) Programme launched (June 2014)
The Children & Young People Improvement Collaborative (Nov 2016)
Permanence And Care Excellence (PACE) Programme launched (Jan 2014)
The Leading Improvement Team created within the Health & Social Care Directorate at SG
iHUB - Improvement Hub launched by HIS (1st April 2016)
Healthcare Improvement Scotland (HIS)
formed as a public health body in NHSScotland (Apr 2011)
Scotland-IHI Strategic Oversight Group
established comprising senior staff from SG and HIS along with senior faculty from IHI (July 2013)
Collaboration with the Institute of Healthcare Improvement (IHI) – technical partnership The Institute of Healthcare Improvement (IHI) entered into a 3-year QI Strategic Partnership with SG (July 2013)
Contract with IHI extended until June 2018
2020 Vision for Health & Social Care (2012)
Public Bodies (Joint Working) (Scotland) Act (April)
Health & Social Care Integration came into force (April)
2013
2014
2015
2016
2017

This publication is available at **www.gov.scot**

Any enquiries regarding this publication should be sent to us at
The Scottish Government
St Andrew's House
Edinburgh
EH1 3DG

ISBN: 978-1-78851-348-7 (web only)

Published by The Scottish Government, April 2018

Produced for The Scottish Government by APS Group Scotland, 21 Tennant Street, Edinburgh EH6 5NA
PPDAS312946 (04/18)